IV. FIRE MANAGEMENT COMPONENTS

A. WILDLAND FIRE SUPPRESSION

1. Fire Planning Unit Fire History Analysis

a. Fire History - The four administrative units that make up the NCFMP have a wide distribution of fire occurrence in terms of frequency and fire severity. Historically, units making up the west side zones (Little Snake Field Office, White River Field Office) have a moderate to high frequency of fires, averaging 251 fires and burning an average of 8,500 acres per year. The central and east zones of the NCFMP area (Routt National Forest, Kremmling Field Office) have much lower frequency of fires, averaging 19 fires and burning 4,300 acres per year. The east side zones have the fuel loadings and fire regimes that have recently supported large severe fires.

The condition class index for forested lands in the western U.S. would indicate that a substantial portion of the timbered lands in the eastern portion of the NCFMP area is in condition class II and III (Interagency Cohesive Strategy). Recent insect and wind episodes have increased fuel loadings in localized areas to critical levels. The moderate to long return fire interval, fire exclusion and other management practices, and increased human use and incursion into these areas, has rendered many of the forested areas in peril of large severe wildland fires. Past large acreage fires burned in the area in the last half of the 19th century and the beginning of the 20th century. In natural evolution and with fire exclusion these forests' have achieved a level of vegetation stocking and dead and down fuel loads to exacerbate large fire spread through the dry seasons of the year. Historically, fire occurrence in the Central and Eastern Zones has been limited to approximately 20 fires annually, but the changing fire environment may attribute to changes in this statistic.

The western zones of the NCFMP have a much higher incidence of ignitions that persist to a fire requiring management. The weather and fuel structure in the west sets up ample opportunity for ignitions from frequent summer storms to thrive in the wildland. The historic fire regime of the area is moderately long to a frequent fire return interval and the fuel structure is gradually changing due to management practices and incursion of non-native annual grasses, primarily cheat grass (Bromus tectorum). In areas where fuels are continuous, fire's spread readily and rapidly during the height of the average fire season. Much of this area is grouped typically in fire regime 2 and 3, (Sage-brush), but many of the pinyon and juniper stands have much older stand characteristics, which often have heavier fuel accumulations and burn with stand replacement fire behavior. Many areas exist where sparse fuels and other natural barriers limit fire spread, most are dry sites where the vegetation is of moderate to old in age class distribution.

The fire season normally begins in late April and runs through early November, for the NCFMP. Due to the variety of fire regimes across the unit, fire activity also shifts, but this time frame represents the beginning and end of the NCFMP fire season.

b. Occurrence - During the 12 year period of 1993-2004, the NCFMP averaged 270 fires per year, burning 12,307 acres annually. Approximately 98.4% of these wildfires are Size Class A, B, C and D incidents (less than 300 acres in size.

Table 11: Fire Occurrence (Size and Acreage) 1993 – 2004

Size Class	A	B	C	D	E	F	G
# Fires	977	332	50	9	15	6	1
# Acres	117	547	1,486	1,568	6,151	13,094	73,121

c. Range of Potential Fire Behavior - The most critical fire conditions for the program area begin as early as mid June in the west and can last until widespread fall moisture occurs. Historically the most prolific fire spread events have been through wind driven events, especially in the brush types. Plume dominated fires have occurred particularly during very dry years and in the older stands of pinon/juniper as well as the mixed conifer stands on the Routt Forest. Rates of fire spread through the canopies of sagebrush can exceed 3 miles per hour while spread through mixed conifer and pinyon/juniper stands of ½ mile per hour are not uncommon. Years with better than average moisture tend to keep the light fuels, usually grasses, green, which helps to curtail fire spread. The incursion of annual grasses, like cheat grass, are changing the fire environment. Light fuels available to burn through the height of the fire season are becoming more abundant by way of the species morphology.

On the east side of the program area the fuels and forest health issues would suggest that stand replacement fire will be a more frequent visitor in that area. The timber stands particularly, the high elevation fir-spruce, are exhibiting signs in fuel accumulations, stocking levels, canopy closure, and insect activity that would suggest that they are nearing the time in their cycle that stand replacement events may occur. In 2002 approximately 41,000 acres of these stand types burned within the Routt N.F. at differing levels of intensity, but mostly with the result of heavy mortality within the stands.

2. Suppression/Preparedness Actions - The operational roles of the Northwest Colorado Fire Management Unit in the wildland/urban interface are wildland firefighting, hazard fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments, as described in the Interagency Standards for Fire and Fire Aviation Operations.

Agency administrators will ensure employees are trained, certified and available to participate in the wildland fire program locally, regionally and nationally as the situation demands, as described in the Interagency Standards for Fire and Fire Aviation Operations.

Following current land management direction, the NCFMP suppression strategy is to use appropriate management response on all wildland fires in accordance with management objectives and based on current conditions and fire location. Suppression efforts will be implemented at minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives. Every wildland fire will receive AMR to protect firefighter and public safety, values at risk, and minimize suppression costs. AMR can vary from aggressive initial action in the wildland urban interface to monitoring. See detailed

description of FMU's for specific suppression objectives and fire management constraints. Detailed AMR action descriptions are found in the NCFMP Operational Procedures Guide.

This FMP identifies suppression objectives that vary by vegetation type and response time, and consider safety, resource objectives, fire hazards, and values at risk. Each FMU has been assigned a priority rating to direct suppression actions in the event of multiple ignitions. Objectives, priorities, and strategies are tailored to address areas with significant resource concerns such as rural or urban interface, commercial timber, areas of critical environmental concern (ACECs), critical habitat for T&E species and areas with invasive non-native species, erodible soils and historic and cultural sites.

Required fire operations/suppression plans can be found in the current Interagency Standard for Fire and Fire Aviation Operations and the Office of Fire and Aviation website at: http://www.fire.blm.gov/.

Annual operating fire plans exist with Grand, Jackson, Moffat, Rio Blanco, and Routt counties. These plans cover initial attack responses, mutual aid, and other procedural and cost reimbursement topics between cooperating agencies. The pans are reviewed and renewed annually. These plans only exit in paper form and copies are kept by the NCFMP FMO.

See the NCFMP Operational Procedures Guide for a complete summary of the preparedness organization including staffing, budget, equipment, etc.

3. Fire Prevention, Community Education, Community Risk Assessment, and Other Community Assistance Activities (FireWise)

a. Fire Prevention Program: The following discussion is an overview of the Hazard Risk Values Analysis combined with Wildfire Occurrence and Problem Analysis covering the NCFMP area. Discussion will cover the four fire management zones for general synopsis purposes.

1. *Values:*
   - The western half of the north and south zones are predominately rural in nature with significantly large contiguous blocks of public lands. Approximately 50% of the public lands have been assigned "C" or "D" classification under the FMP's for those administrative units (Little Snake and White River Field Offices, and Dinosaur National Monument). Moderate to high value components do exist adjacent to private in-holdings, oil and gas development, coal mine, cultural sites, critical winter range, cutthroat trout habitat, stands of Douglas fir and mature cottonwood riparian. Urban and rural interface fires have occurred around Maybell, Meeker, Sunbeam, Greystone, Rangely, and Dinosaur.

   - The eastern half of the north and south zones are increasingly developed west to east from Maybell to Steamboat Springs. The intermixed land ownership is approximately 50% BLM 30% private between Maybell and Craig, becoming mostly private continuing on to Steamboat Springs. High value areas include

public/private interface, critical wildlife winter range, oil and gas development, and open pit coalmines.

- The central zone has urban interface in and around Steamboat Springs, Stage Coach, Oak Creek and rural interface along the Elk River Corridor. Big winter range over laps much of the rural interface areas. Municipal watershed, commercial timber and recreation are considered high value resources.

- The east zone has winter range, timber, and critical sage grouse habitat, with intermixed land ownership issues, 60% public (USFS and BLM) with 40% private. Urban expansion is on the rise especially in east Grand County with multi-million dollar residences being constructed adjacent to public land.

2. *Risk:*
   - The highest wildfire occurrence on the NCFMP area takes place in the western half of the north and south zones with the majority of the fires and acres burned. Lightning accounts for 88% of all starts and approximately 1/2 of the acres. Illegal use of fire with the apparent purpose of increasing livestock forage has historically been a problem in the western half of the north and south zones. The central and east zones averages 20 fires per year, however the fire environment is changing due to the Routt/Divide blowdown, resulting in a spruce bark beetle epidemic. Approximately 40% of the fires are human caused in this zone. Careless smoking, vehicle exhaust, escaped agricultural burning and unattended campfires account for the majority of the human caused starts. Equipment usage starts a few fires as well.

   - Efforts to recover fire loss and suppression expenses have not been successful due limited funding and availability of law enforcement personnel trained in fire cause and investigation; the large number of dispersed recreation sites and insufficient evidence to support conviction.

3. *Hazard:*
   - The hazard component varies across the Unit from very low to very high. Moderate to high hazard areas include: mature pinyon stands in the Piceance Basin, Douglas Pass, Greystone, Bear Valley, and the Skull Creek Rim; also mature stands of conifer exhibiting high risk to beetles and the blowdown on the Routt. Mature stands of oak brush inhabit much of the steeper slopes above 6,500'. Decadent stands of continuous bitterbrush/sage are common to the Great Divide. Bug killed Douglas fir also contributes to high hazard areas.
   - Cheat grass has significantly increased from historically inhabiting scattered pockets to becoming a dominant fine fuel component intermixed with sagebrush and pinon/juniper stands. Areas of large blocks of infestation include the Brown's Park, Greystone, Rangely Basin, and Piceance Basin. Cheat grass has recently been found at higher elevations on the Routt National Forest.

- High risk, high hazard, and high value areas include: Steamboat Springs and Meeker interface, Douglas Mountain, Greystone, Dragon Road oil fields, Central Piceance, Elk River, Steamboat Lake, Stagecoach/Morrison Creek and Catamount. Areas of high hazard, high value with low to moderate risk are: Upper White River, Breeze Basin, Wilderness Ranch, Great Divide, Winter Park/Granby, Grand Lake, Hot Sulphur Springs, eastern Grand County, Kremmling, timber stands designated for management purposes, and motorized trail corridors.

4. *Mitigation and Education:*
   - Due to the high percentage of lightning caused fires prevention/mitigation activities place a strong emphasis on hazard fuels reduction projects. Current year target for hazard fuel reduction is 10,000 acres with incremental increases planned over the next 5 years.

   - NCFMP supports an on going communication and education program that relates the role of natural fire in the ecosystem and related adaptations in fire management and fire response to the general public.

   - To maintain public awareness of the need to prevent wildfires, planned mitigation for human caused fires include press releases, school programs, Smokey Bear Program, public outreach through meetings and visitor centers. Another important part of the prevention/education program is in developed recreation areas through signing of information on fire danger and hazards (e.g.” No fireworks signs in campgrounds posted around July 4th).

   - An integrated approach to community based fire planning, mitigation, and public interaction is used across the NCFMP in keeping with the national fire plan.

5. *Strategies:*
   - Appropriated funding is spent toward planning and implementation of fuel hazard reduction projects for the purpose of reducing risk to fire fighters, high value resources, and to lower overall suppression costs. An aggressive hazard reduction program is part of a strategy to reclassify category "B" areas to "C" or "D" and move category "C" areas to "D" classification.

   - Labor costs are identified in NFMS for the BLM ranger and Forest Protection Officers programs for public, users, and cooperator education as well as compliance, enforcement, and cost recovery from illegal fire use.

6. *Social and Political Concerns*:

   - The NCFMP area is a diverse corner of the state in regard to attitudes and understanding of fire’s role in the ecosystem. Large portions of the public are ranchers who utilize and understand the benefit of fire management on the land. The non-ranching public range from those who understand and accept fire’s role

to those who are opposed to any level of fire in their immediate area. There are also small pockets of anti-government supporters who oppose any type of federal or state involvement.

- The main concerns of the public revolve around: smoke issues, visual impacts, safety, economics, and health concerns. These concerns will be addressed on an incident-by-incident basis and may include public meetings, press releases, individual contacts and mitigation measures.

b. Special Orders and Concerns: The purpose of special orders, restrictions and closures is to reduce the risk of human-caused fire during periods of extended high fire danger.

- Coordination - All restrictions and closures are coordinated with local cooperators, recommended by the agency FMOs, and approved by the appropriate agency administrators.
- Authority - Agency administrators have the authority to issue restrictions and closures on public lands. The employees, who are responsible for implementation and enforcement of the restrictions, will be contacted through their supervisor to ensure that proposed restrictions are coordinated across the NCFMP as appropriate.

The Northwest Colorado Fire Restriction Plan is kept on file at the CIDC.

1. Stage I, Stage II Restrictions and Stage III Closure - Each agency is responsible to prepare written fire restriction orders under its jurisdiction. To establish consistency, reduce confusion and standardize restrictions, the following criteria will be used in all restriction documents:

2. Stage I Restrictions: The following acts are prohibited until further notice:

- Building, maintaining, attending, or using a fire, campfire, coal or wood burning stove, any type of charcoal fueled broiler or open fire of any type in undeveloped areas.
- Smoking, except within an enclosed vehicle or building, in a developed recreation site or while stopped in an area at least 3 feet in diameter that is barren or cleared of all flammable vegetation.
- Using explosive material: (i.e.: fireworks, blasting caps or any incendiary device which may result in the ignition of flammable material.).
- Welding, or operating an acetylene or other similar torch with open flame.
- Operating or using any internal combustion engine without a spark arresting device properly installed, maintained and in effective working order meeting either: Department of Agriculture, Forest Service Standard 5100-1a; or Appropriate Society of Automotive Engineers (SAE) recommended practice J335 (b) and J350 (a).

Possible Exemptions

- Persons with a written permit specifically authorizing the otherwise prohibited act or omission.
- Fires in constructed, permanent fire pits or fire grates within developed recreation sites.
- Any Federal, State, or local officer or member of an organized rescue or firefighting force in the performance of an official duty.
- Mechanical stoves and appliances fueled by bottled or liquid gas, which allow the operator to control or extinguish the flame with a valve, are permitted provided that Underwriters Laboratory Inc approves such devices.
- Owners or lessees of land in the restricted area.
- Residents in the restricted area.

3. Stage II Restrictions: The following acts are prohibited until further notice:

- Building, maintaining, attending, or using a fire, campfire, coal or wood burning stove, any type of charcoal fueled broiler or open fire of any type.
- Smoking, except within an enclosed vehicle or building.
- Using explosive material: (i.e.: fireworks, blasting caps or any incendiary device which may result in the ignition of flammable material.).
- Welding, or operating an acetylene or other similar torch with open flame.
- Operating or using any internal combustion engine without a spark arresting device properly installed, maintained and in effective working order meeting either: Department of Agriculture, Forest Service Standard 5100-1a; or Society of Automotive Engineers (SAE) recommended practice J335 (b) and J350 (a).
- Operating a chainsaw without a chemical pressurized fire extinguisher of not less than eight-ounce capacity by weight, and one size 0 or larger round pointed shovel with an overall length of at least 36 inches. The extinguisher shall be with the chainsaw operator. The shovel may be kept with the fueling supplies but readily available.

Other possible restricted acts under Stage II:

- Operating a motorized vehicle off designated roads and trails.
- Operating a chainsaw outside the hours of 5:00 am and 11:00 am.
- Overnight camping limited to listed campgrounds and recreation sites. (An attachment of designated sites would be included).

Possible Exemptions

- Persons with a written permit specifically authorizing the otherwise prohibited act or omission.
- Any Federal, State or local officer or member of an organized rescue or firefighting force in the performance of an official duty.
- Mechanical stoves and appliances fueled by bottled or liquid gas which allow the operator to control and extinguish the flame with a valve are permitted provided that Underwriters Laboratory Inc approves such devices.

- Owners or lessees of land in the restricted area.
- Residents in the restricted area.

4. Stage III Closure: Before the fire season, the NCFMP FMOs will review the evaluation guidelines and determine threshold levels that substantiate the need for closures. Examples include:

- Potential loss of life due to explosive fire conditions.
- Potential for extreme or blowup fire behavior.
- Stage I or State II restrictions are not effective in reducing the number of human caused fires.
- Resources across the geographic area are at a critical shortage level.
- Proximity to substantial population centers.
- The extent of wildland-urban interface.

c. Industrial Operations and Fire Precautions

- **Structures and Improvements** – Zone fire management staff and/or zone managers or their appointed representatives make inspections of zone facilities periodically. Measures to reduce the risks of and hazards from wildfire are to be taken immediately whenever problems are noted.

- **Rights of-Way** - Rights-of-way in the form of roads and power lines must be periodically reviewed to minimize the potential for fire starts. This is an integral part of the special use inspection process. Inspections and removal of hazardous vegetation required. (Power Line Fire Prevention Handbook FSH 5109.21)

- **Roads** - Public roads are numerous, offer many attractions, and are the primary means of public access into and through NCFMP area. Fuel loading along major roads is treated in accord with Land and Resource Management Plan direction.

- **Industrial Operations (Timber and Special Use Operations**) – Compliance inspections are completed in accordance with contract requirements or per manual direction in the case of special use permits. Inspections are for the protection of the public land resources and the operators. Agency representatives enforce all requirements of the contract related to fire prevention precautionary measures.

- **Spark Arresters and Equipment** - All internal combustion engines that operate on the NCFMP must have properly working spark arresters. Agency personnel conduct spark arrester inspections.

- **Community Education** - The NCFMP works to protect communities through prescribed fire and fuel reduction efforts around communities, and working to ensure adequate federal funding for these efforts. The NCFMP helps to provide opportunities for education, training, and participation in fuel reduction projects for home and property owners, county fire districts and cooperating agencies.

- **Assistance Programs** - Recognizing that fire risk mitigation around communities needs to be a collaborative effort between agencies and local citizens, the NCFMP works in the wildland-urban interface to reduce fuel loads on public lands near communities. These efforts are done cooperatively with cooperating agencies, county fire districts, Federal, State and local governments.

4. Fire Training Activities

a. Critical Qualification and Position Needs for the NCFMP: The NCFMP has an established red card committee consisting of zone FMO's, the program's AFMO, and CIDC center manager. The purpose of the committee is to have a formalized process to review and recommend task books for approval by the NCFMP FMO. All personnel involved in fire assignments are qualified as per NWCG and agency performance levels. This consolidated approach also allows for trainees to be prioritized and assure training/experience is gained. To assure a comprehensive and coordinated effort in the qualification and position needs the agency administrator and employee's roles need to be clearly understood by all involved parties.

In addition to reviewing individuals' training/experience/qualifications, the committee looks at overall training needs of specific employees and the organization as a whole to identify and correct deficiencies. This review has allowed the NCFMP to identify trainings to host locally to meet the unit's needs and use training funds more effectively. Copies of training records and qualifications are located in the Craig Interagency Dispatch Center.

The fire management officers will meet annually to review wildfire and prescribed fire qualifications for all agency personnel. This group reviews the list of personnel qualified by position to undertake assignments in support of wildfire or prescribed fire and identifies positions where insufficient personnel are qualified to meet short term management needs.

The needs assessment is forwarded to the Rocky Mountain Area Training Committee for discussion at the area level. The zone FMOs will identify individuals for priority classroom and on-the-job training assignments to address short-term needs by functional area.

To employ the strategies and mitigation measures stated above the NCFMP will be emphasizing ecosystem management and fire use related training for their work force. This emphasis will provide a more well-rounded, better-informed work force for the future, and provide the skills necessary to carry out an accelerated fuels reduction and fire use program.

The NCFMP hosts basic firefighter trainings annually (S-130, S-190, I-100) as well as annual refreshers, and physical fitness testing. The NCFMP frequently is host to other trainings, including an annual engine academy for all suppression modules on the unit and surrounding units.

b. Fire Season Readiness**:**

- **Annual Review**: Annual readiness reviews are an integral part of the goal to ensure firefighter safety. In addition to refreshers, and training, the NCFMP hosts an "engine academy" to maintain consistency between modules, as well as safety training, and readiness exercises. The State BLM, FS Regional Office, FWS Mountain Prairie Regional Office, and NPS Intermountain Regional Office visit a part of the unit to conduct annual reviews. The NCFMP also hosts a national review every third year. Reports from these reviews can be found in the Craig Interagency Dispatch Center.

- **Fire Season Start and Stop Criteria**: Normally, the fire season begins April 1 and runs through October 21. Due to the variety of fire regimes across the NCFMP area, fire activity also shifts, but these dates represent the beginning and end of the normal seasons. These dates have been established using NFDRS PC historical analysis information using historical weather data. The unit has experienced fires outside of these dates, but these occur in more extreme years.

- **Fire Cache Considerations**: The NCFMP fire cache system is centrally located at the NCFMP center in Craig, CO. Each administrative unit maintains satellite caches in respective offices (Meeker, Yampa, Steamboat, Kremmling, Walden, Dinosaur and Browns Park), which support initial attack, and extended attack in those zones. These satellite caches also support CIDC when necessary, or when CIDC cannot be supported by the RMACC or NIFC cache due to high fire activity.

- **Fire Training and Fitness Activities**: The agency administrators will ensure that their employees are trained, certified and made available to participate in the wildland fire program locally, regionally, and nationally as the situation demands. Employees with operational, administrative, or other skills will support the wildland fire program as necessary. Agency administrators are responsible and will be held accountable for making employees available as balanced by other agency priorities.

- **Recurring Training Activities**: Zone FMOs are the primary coordinators of training needs. All agency personnel having wildland fire qualifications in operations are required to attend an annual fire refresher. This refresher includes fire shelter deployment and recurrent safety topics such as Standards for Survival; Look Up, Look Down, Look Around; or similar safety oriented training. Training and fitness requirements for all personal involved in fire/suppression support can be found in the current Interagency Standards for Fire and Fire Aviation Management. Annual attendance at refresher training and successful completion of the appropriate level of work capacity testing is a prerequisite for issuance of a red card. Periodic refresher training and work capacity testing sessions are conducted between February 1st and June 30th annually.

All employees with support roles in fire suppression such as camp crew, drivers, resource specialists and agency administrators are encouraged to attend annual fire refresher training.

NWCG basic firefighter training is offered annually to new employees and interested members of local cooperating agencies and fire departments.

- **Recurring Fitness Activities**: Training and fitness requirements for all personal involved in fire/suppression support can be found in the current Interagency Standards for Fire and Fire Aviation Management. Successful completion of the appropriate level of work capacity testing is a prerequisite for issuance of a red card.

5. Detection

Detection of wildland fires occurs in several ways:

- **Lookouts**: the fire program, staffs, in partnership with the NPS, two lookout towers in the western portion of the NCFMP area. These lookouts, Zenobia and Roundtop are staffed daily during fire season.

- **Public Reports**: Fire reports via cell phone is becoming more common. Many of these calls are transferred from 911 services; while others are placed directly to the inter agency dispatch center.

- **Cooperators**: Cooperators such as county sheriffs and personnel, state highway patrol and other emergency services will contact CIDC directly with information of fires. This information is very helpful, as these people are more versed in informational needs for appropriate suppression response. These reports also help in determining multiple reports of one fire, or multiple fires.

- **Permitees/Leasees**: These people are aware of our mission and also help in reporting fires to the dispatch center directly, or through local agency offices.

- **Resource Personnel**: Each administrative unit has a variety of resource people in the field at all times. Frequently, reports come from these field-going people.

- **Fire Personnel:** During planning level III and above, the fire programs preparedness levels (NCFMP Operational Procedures Guide) directs detection protocol. Ground modules pre-position in key locations for detection and to reduce initial attack dispatch time. Aerial reconnaissance and, pre-positioning occurs after lightning events.

- **Aerial Reconnaissance**: At planning level III and above and after lightning events, aerial recon is instituted to help in detection, initial size-up, and assist ground suppression forces to fire location. On average, the NCFMP flies 250

hours of reconnaissance annually. The contract air attack platform and available smokejumper aircraft can undertake aerial detection mission subject to their availability.

6. Fire Weather and Fire Danger

The agencies monitor data from the eleven remote automated weather stations (RAWS) listed in the table below:

Table 12: NCFMP Remote Automated Weather Stations

Name	NWS ID	NESS ID	Elevation	Fuel Model	Lat/Long
Ladore	050104	325A4300	5940	F,G	40:44:18 108:29:21
Great Divide	050106	3259C21A	7220	F,T,G	40:45:28 107:51:11
Gunsight	050404	325FC2D4	8360	T,G	40:12:33 106:19:45
Pinto	051402	325A65EC	6660	F,G	40:01:15 108:23:50
Hunter Creek	051406	324A6272	6920	F,G	39:46:00 108:19:00
Dragon Rd.	051407	324A8180	6240	F,G	39:55:23 108:52:57
Ernie Gulch	051408	324A92F6	7000	F,G	40:02:45 108:12:00
Dry Lake	050207	3235E758	8280	G	40:32:06 106:46:51
Willow Creek	050304	323F42E	9680	G	40:21:05 106:12:55
Porcupine	050406	3235D2C2	8880	G	40:05:52 106:40:47
Dinosaur NM Success	050105	FA45B596	5960	F,T	40:30:31 108:54:38

A variety of BLM, NPS and USFS weather stations are used to assess the climatological effects on ignitions during planning and daily projected fire behavior. There are 11 stations in the NCFMP sphere of influence. Several have long and consistent records, which are valuable for planning efforts and help to set a frame of reference for some of the others. The most consistent records that can be compiled are used to establish break points in the weather files for critical fire weather and danger. The break points can indicate rapid spreading fire as well as severity in fire effects.

Breakpoints most commonly used in NCFMP are shown in percentile groups of the average worst-case fire weather (NCFMP Operational Procedures Guide). In this case, the entire daily records for the season from the remote automated weather station (RAWS) is sorted in a group from least critical to most critical fire weather. Several variables affecting wildland fire are considered to determine critical fire weather, for example wind or dryness. After the data table is sorted, the 15% of records with the highest value by variable being assessed is used to determine weather, climate, and environmental conditions that contribute to critical fire behavior. The 85th, 90th, 95th and 97th percentile groups by variable are used to track environmental conditions that contribute to average worst-case fire behavior.

a. National Fire Danger Rating System

The national fire danger rating system (NFDRS) has developed indices that are used consistently across the nation by fire management specialists to track environmental conditions, which relate to fire danger conditions. Of the indices, energy release component (ERC) is used most often by NCFMP in planning and daily observation to indicate severe fire conditions. Energy release is an indicator of dryness that calculates energy released in wildland fuels based on the ability of the fuel to burn due to low fuel moisture. The low fuel moisture is brought on by atmospheric conditions over time, which dry wildland fuels to a critical point. Tracking dryness in wildland fuels is a consistent record of when the atmospheric elements affect the fire environment to a point where it is critical or severe from a wildland fire perspective.

Other indices provided by the NFDRS are used as well for analytical purposes on specific planning inputs, which deal with fire spread and severity. They are: burning index (BI), spread component (SC), and ignition component (IC). Of these three; two are influenced by wind speed, and the other by ambient air temperature, which tend to make the record fluctuate rapidly through time. Other dryness indicators used by NCFMP to determine critical fire conditions are live fuel moisture and large dead fuel moisture. Particularly on the west side of the protection area grasses and shrubs may dry to a point where they can contribute to wildland fire spread and intensity dependent on atmospheric drying. Many methods are used to track live and large dead fuel moisture including; sampling, ERC, and satellite imagery.

The NFDRS indices break points are used by NCFMP to establish preparedness levels, prescription parameters (NCFMP Operational Procedures Guide), prescribed fire, fire use, daily preparedness (staffing, extended staffing), fire restrictions/closures, severity requests, and in daily briefings throughout the fire season for fire fighter safety. NFDRS indices are also compared to KBDI, palmer drought index and live fuel moisture sampling results validation.

As mentioned in section II, the NCFMP follows BLM, USFS manual and handbook direction in fire management. Other references include FSH 6509, from which job hazard analyses are developed, NWCG Handbook 3 (Fireline HB), DIO-BLM H-9213-1 Standards for Fire Operations (Red Book), BLM HB 1112-2 (safety HB), DOI 620 DM1, FWS Fire Management Handbook, and NPS RM-18 as well as IHOG, OAS policy, etc.

All of these policy and direction documents give sideboards to manage the fire program. Due to the integrated approach by multiple agencies, the NCFMP's standards of operation, ties them together in how to best accomplish the overall fire management task. Following are examples of

how the NCFMP gets the job done, while meeting it's most important goal, firefighter and public safety.

b. Plans – The preparedness plan, restriction plan, and aviation plan are all consistent and interactive. These plans incorporate the multiple agencies, cooperators, and other entities with a mechanism to follow, especially during high fire activity.

c. Dispatch Center Mobilization Guide – This guide states the mission of the CDIC in relation to the NCFMP, objectives, and operating procedures.

d. Delegations of Authority- Granting authorities and accountability for response actions in daily function to the NCFMP's FMO is located in the NCFMP Operational Procedures Guide.

e. Daily Briefings – During the fire season (planning level II and above), the NCFMP FMO or acting will provide a daily briefing for all fire personnel. Remote modules (including those on assignment) are able to conference into the briefing, so it is available to all. The daily briefing provides information on current fire status, weather, predicted fire behavior, resource assignments, resource availability (including aviation resources available), and Six Minutes for Safety.

f. Off –Program Area Resources – Due to a sometimes-heavy fire load, the NCFMP hosts many off-unit resources. Each module is oriented through informational briefing, supported by fire history and other background information. It is standard operating procedure to have off-unit resources have a thorough formalized briefing by the FMO before being assigned to an incident. Transition of command is discussed with these resources, as well as communications protocol.

g. Fire Severity / Severity Guide - Severity planning is done for both short and long duration situations. Short duration considers a period of one day to several weeks. Long duration contingency planning is for an extended time period.

Short duration planning can be an appropriate strategy for conditions as reccomended by the zone FMOs. Typical planning would include increased staffing, pre-positioning of local forces, close coordination with fire management partners, escalated interagency prevention efforts, etc. The objective is to get through a short duration critical period, with existing budgets.

Long duration severity planning involves requesting severity funding to supplement existing preparedness resources to increase staffing levels in response to long duration or uncharacteristic weather trends. Severity requests must be submitted two weeks in advance of planned needs.

Severity planning considers the following:

- Energy release component (ERC).
- Sustained departure from normal long range weather forecasts
- Full commitment of local and regional resources.
- Measured departure from normal in live fuel moisture conditions
- Abnormal/unforeseen numbers of human caused fire starts

- Uncharacteristic fire sizes adjusted for seasonal norms

Funding requests are based on anticipated needs and are only used if predicted conditions are realized. Severity funds do not make up the difference between the program funding level and the most efficient level (MEL), but rather provide for capability beyond the MEL staffing level identified in the NFMAS analysis.

h. Red Flag Conditions - *Fire weather watches* and *red flag warnings* are issued to inform land management agencies of the possible development of or actual occurrence of red flag conditions. A red flag event occurs when critical weather patterns develop that could lead to large and dangerous fires.

Conditions that warrant *fire weather watch* or *red flag warning*, either alone or in combination are the expected or actual occurrence of:

- General dry thunderstorm activity (LAL-6), i.e. considerable lighting but little or no measurable precipitation.
- The combination of strong winds (usually 25 mph or more), low humidity (15% or lower), and high temperatures (usually 80 degrees and above).
- Fire danger in the "very high" or "extreme" category.
- In the judgment of the forecaster, weather conditions and fire danger combine to indicate a severe fire weather episode.

i. Fire Weather Watch – Will be issued whenever the potential for red flag conditions exists. A watch will normally be issued 12 to 36 hours in advance of the expected onset of red flag conditions. If dry lightning is the only condition expected in the 0 to 12 hour time frame, a *fire weather watch* may be issued or continued in place of a *red flag warning*.

j. Red Flag Warning – Will be issued whenever red flag conditions are imminent or occurring. A warning will generally be issued within 12 hours of the expected onset of red flag conditions, or whenever the forecaster becomes aware of an ongoing red flag event.

Fire weather watches will most likely be issued with the morning or afternoon forecast while *red flag warnings* may be issued at any time. The watch or warning will be headlined in the forecast with information on the affected area, the valid time of the watch or warning, and a description of the expected severe fire weather conditions included. Both watches and warnings will continue to be highlighted in the routine fire weather forecast until threatening conditions cease.

Fire weather watches and r*ed flag warnings* will be entered into WIMS and the affected agencies notified by telephone usually before, but always after a watch or warning has been issued. The forecaster will cancel a watch or warning when the conditions are no longer expected to occur. During the off-season, if very warm, dry and windy conditions are expected, the NWS will notify the Rocky Mountain Area Coordination Center by phone.

The National Weather Service Fire Weather Watch/Red Flag Warning program is used to warn land management agencies of the onset or occurrence of critical fire weather conditions. The NWS does not make any management decisions as a result of the *fire weather watch* or *red flag warning*. Specific actions are determined by user agencies. Preparedness levels will be adjusted commensurate with *the red flag warning* and *fire weather watches* based on existing local conditions.

k. Spot Weather Forecasts - Spot weather forecasts are required for prescribed burning and are commonly needed to assist with plans for wildfire suppression. The procedures for obtaining a spot forecast are as follows:

- Wildland and prescribed fire personnel take weather observations at site of fire.
- Observation data may be forwarded directly to the National Weather Service (NWS) or to CIDC who in turn forwards the information to the NWS.
- NWS formulates a forecast and either sends a FAX copy to CIDC or puts the forecast into WIMS for retrieval.
- CIDC forwards the spot weather forecast to the incident commander or zone FMO via FAX or radio.

Spot weather forecasts and other fire weather information are provided through the National Weather Service Office in Grand Junction for the North, South and Central Zone. The NWS Office in Denver provides weather information for the East Zone.

7. Aviation Management

Local vendors are available to provide point-to-point transportation, aerial ignition platforms and reconnaissance missions to support fire and resource management activities. Aviation resources usually available to the NCFMP area include:

Table 13: Available Aviation Resources

Location	Aircraft
Craig	One privately contracted SEAT

8. Initial Attack

a. Information Used to Set Initial Attack Priorities – Some of the fundamental criteria for setting initial attack priorities are shown below. The NCFMP Operational Procedures Guide contains the specific "Initial Attack Response Guides" that assign resources to zones within the fire program dependent on established breakpoints.

Interagency resources staffed by the NCFMP are typically able to handle multiple initial attack actions simultaneously between zones. In instances where multiple wildfire starts require prioritization, the NCFMP AFMO or designee will consider the following criteria in assigning incident priorities:

- Imminent threat to firefighter and public safety or private property and improvements (protection priorities)
- Probability of success in using airtanker(s) to retard the rate of spread until ground-based resources are available
- Resource management plan direction for the management area
- Resource values at risk
- Projected commitment of initial attack resources
- Ability of cooperator resources to successfully conduct initial attack actions
- Road access or lack thereof
- Single or multiple jurisdictions involved or likely to be involved
- Current and predicted fire weather
- Fire behavior currently exhibited by ongoing incidents in similar fuel types
- Proximity to and probability of fire spread into critical fuel types.

The appropriate suppression response will be based on the current and predicted weather and fire behavior. It may be necessary at times for individuals or groups to be exempt from fire suppression activities in order to meet targets, critical deadlines, or accomplish other high priority jobs. For coordination purposes, the work supervisor will notify the zone FMO of the specific individual's availability and the time periods involved.

Use the following information for determining initial attack priorities:

- Threats to human life or property
- Net value change
- Location of timber management activities
- Special wildlife habitat areas
- Archaeological, paleontological and heritage sites
- Safety hazards

b. Criteria for Initial Attack Response: The response guides are used by dispatch to determine appropriate resources to send on detection of a fire, determined by preparedness levels, which is based on elements that range from indices at varying levels to the amount of fire activity locally and regionally. The management objectives tables are located in the implementation plan (NCFMP Operational Procedures Guide). The implementation plan also has specific areas of concern that warrant a heightened sense of protection from initial fire forces. Standard operating procedures, roles and responsibilities of fire management personnel, and direction covered in daily briefings, are all identified in the implementation plan.

All suppression actions will be based on the WILDCAD run card program, maintained at the CIDC, district direction summaries and action plans for that location. The decision that determines an appropriate response should also use the following criteria:

- Firefighter and public safety
- Threat to life or property
- Suppression costs
- Resource damage or loss (from fire and suppression actions)

- Environmental impacts (of fire and suppression actions)
- Current and predicted fire behavior
- Current and predicted weather
- Smoke management considerations
- Suppression resource availability
- Political considerations

Suppression of fires will take priority over most other work. However, it may be necessary at times for certain individuals or groups to be exempt from fire suppression activities in order to meet targets, critical deadlines, or accomplish other high priority jobs. For coordination purposes, it is requested that the work supervisor notify the zone or NCFMP FMO of the specific individual and what time periods are involved.

All fires will remain staffed or monitored until declared controlled or out. The IC will determine continued staffing procedures. At a minimum, regular burning period checks will be made until the IC declares the fire out.

Night travel and work will be a standard practice, except where deemed unsafe because of conditions such as weather, fire behavior, difficult or unfamiliar terrain, or lack of adequate radio contact.

Firefighters will maintain radio contact with their zone office or the CIDC while suppressing fires, and will check in at regular intervals. If the fire is in a location with poor or no radio communications a relay will be set up and maintained while firefighters are in that area.

c. Confinement as an Initial Attack Strategy: Less than full suppression tactics are discussed in the NCFMP Operational Procedures Guide. The only recognized limited response tactic in the Federal Fire Management Policy (1995; 2000) is a confinement tactic. This tactic is used in the NCFMP protected lands in areas that have natural boundaries and provide a compliment to fire fighter safety. Occasionally this tactic is used during a WFIP Stage 1 analysis for AMR to provide time to make a more informed decision.

d. Response Times: Response times are considered in initial attack dispatching. The NCFMP uses the closest forces concept, and maintains coverage throughout the response area. The preparedness plan addresses the response times, and initiates pre-positioning during higher planning levels to reduce response time.

e. Restrictions and Special Concerns: Some areas of the NCFMP area have policy driven restrictions to operations, such as motorized use in wilderness. Areas of special concern include threatened and endangered species habitat, and archeological sites. These special areas have restrictions over other areas. Each administrative unit's fire management plan identifies restrictions or issues of concern within specific polygon description in Appendix B and action to prevent adverse effects.

f. Social and Political Concerns: The NCFMP incorporates a diverse corner of the state in regard to attitudes, personal perceptions and understanding of fire's role in the ecosystem.

The main concerns of the public revolve around: smoke issues, visual impacts, safety, economics, and health concerns. These concerns will be addressed on an incident-by-incident basis and may include public meeting, press releases, individual contacts and mitigation measures are included in the individual fire management plans.

All fires within will be managed with suppression actions consistent with preplanned dispatch protocols (run cards and preplanned dispatch plans) in conformance with resource management objectives identified in this plan. Tactics and strategies will be based on the current and predicted weather and fire behavior. Firefighter and public safety is always the first priority. The highest priority FMUs within the fire-planning unit for initial attack are ranked as follows:

1.) FMU A
2.) FMU B
3.) FMU C
4.) FMU D

9. Extended Attack and Large Fire Suppression

Direction for extended attack and large fire suppression is outlined in the current Interagency Standards for Fire and Fire Aviation Operations Manual.

A wildfire is considered to be in extended attack status when:

- Suppression efforts have not succeeded or are not expected to reach containment within 24 hours.
- The initial attack incident commander (ICT4 or ICT5) requests additional resources that result in fire complexity attaining type III status within or following the first 24 hours following the arrival of the first suppression resources.

Timeframes and conditions that warrant completion of a WFSA and declaration of an escape from initial action are declared in the implementation plan (NCFMP Operational Procedures Guide) action to extended attack, or from a small local incident command structure to a management organization designed to handle larger and more complex incidents. A WFSA may be completed after initial attack fails at the completion of one burning period.

Procedural elements for transition to extended attack are discussed in detail in the NCFMP Operational Procedures Guide.

10. Other Fire Suppression Considerations

a. Wildland Fire Situation Analysis (WFSA) Development

The NCFMP FMO, or their designee will prepare a wildland fire situation analysis (WFSA) for all wildfires that escape or are expected to escape initial attack. Preparation of the WFSA will be coordinated with the responsible agency administrator or designee.

The District Ranger/Field Office manager is responsible to select the preferred management strategy for the incident. Selection of the preferred management strategy will not consider positive resource benefits resulting from wildfire as an objective.

Alternatives developed through the WFSA process must be consistent with the goals of the land use plan and must address the following:

- Firefighter and public safety
- Protection priorities
- The alternative can be implemented.
- Each alternative must be accompanied by a strategic plan of action.
- The probability of success and consequences of failure must be assessed and displayed.
- Each alternative will display the estimated numbers of acres burned, times for containment and control, suppression costs and resource damage.

If the least cost alternative is not selected then a written explanation of the reasons for not selecting this alternative must be included in the WFSA.

Approval authorities and qualifications for agency administrators have been established for certifying a WFSA. In addition, training and experience requirements must be met for an agency administrator to certify a WFSA. The following list identifies qualified agency administrator and their respective levels of authority:

- District Ranger/Field Office Manager: Approval authority up to $2 million or an IMT2 activated.
- Forest Supervisor/BLM State Director: Approval authority from $2 to $10 million or an IMT1 or area command activated

b. Exceeding Existing WFSA – Selecting a New Strategy - A new WFSA is required when the objectives of the existing WFSA have been compromised (or are expected to be compromised). The revised WFSA will include a new set of objectives and a range of alternatives and associated fallback strategies and worst-case outcomes.

Given the inherent inaccuracies in developing estimated costs associated with each alternative, exceeding the cost estimate for the preferred alternative will at minimum require a pen and ink amendment to the existing WFSA.

c. Incident Management

1. Type III Incident Management: A type III incident commander will manage incidents that reach a type III complexity level and associated command and general staff positions as appropriate for the incident. The CIDC maintains a list of interagency personnel qualified at the type III level and above. Individuals qualified and current at the section chief or unit leader level are included on the type III cadre.

When a situation is beyond the NCFMP capabilities, an ICS overhead team is brought in at the request of the NCFMP center manager to manage the incident. The type ordered depends on the complexity and severity of the situation.

2. Type I or Type II Incident Management: An incident complexity analysis is used to document the rationale of the fire management staff and responsible agency administrator in determining whether an extended attack incident is expected to, or has increased in complexity to warrant ordering a type II or type I IMT.

3. Transition Requirements for Incoming Incident Management Team: The following elements will be completed prior to the arrival of a type 2 or type 1 IMT on the zone:

- Wildland fire situation analysis (WFSA) complete with applicable incident objectives and a selected alternative to guide tactical suppression actions. The agency administrator will select the preferred alternative and certify the wildland fire situation analysis within their approval authority.
- Agency administrator briefing guide completed.
- Delegation of authority completed and signed by the Agency Administrator.

The ordering zone should also do the following prior to the arrival of the incoming team:

- Determine the fire camp/ICP location.
- Order supplies and equipment (pre-order), as directed by the logistics section chief.
- Make an ample supply of topographic maps, base maps, etc.
- Determine transportation needs of incoming fire teams (from ordering unit mobilization point to fire, and on the fire).
- Determine agency administrator briefing time and location.
- Obtain necessary information for the agency administrator briefing.
- Order communication equipment for the fire.

The NCFMP FMO and agency administrator will conduct two briefings for the incoming fire team. The first briefing should be by the agency administrator at a site away from the fire. The second briefing should be by the current incident commander and staff at the fire site.

The agency administrator briefing should be as soon as possible after the arrival of the incident commander and his command and general staff. It is impossible to list everything a team needs to know, however, as a minimum the WFSA and agency administrator briefing checklist should be completed.

The local incident commander briefing shall take place when the incoming team arrives at the fire. The incoming team will not assume responsibility for the fire until they are thoroughly briefed and comfortable with the situation. Both incident commanders shall determine the exact time of command change. After the briefing, the team should start transitioning into their areas of responsibility, but shall not assume control until the predetermined time.

The local unit's suppression forces may continue to work on the fire in various functions but should be relieved as soon as possible so that they can be rested and ready for initial attack or as reinforcements on other parts of the zone.

d. Dispatching Resources**:** Initial attack is the responsibility of the CIDC. In most cases when an incident management team (IMT) has been ordered, the CIDC center manager in consultation with the NCFMP FMO will initiate an expanded dispatch plan to support the IMT.

e. Demobilization**:** Demobilization shall be carried out in an orderly manner to accomplish a cost effective program commensurate with efficient and effective organization practices. Planning for demobilization shall begin while the fire is being mobilized. Adequate records of personnel, transportation, and equipment used or being moved during mobilization are necessary. In many instances, demobilization occurs at the same time mobilization is occurring elsewhere. Communications for demobilization shall be through established dispatch channels. All release orders shall be recorded on the appropriate resource order form. Table 12 shows the following release priorities shall normally apply:

Table 14: Release Procedures

Resource Type	Suggested Priority of Release
Crews	Out-of- Rocky Mountain Coordination Area (RMAC) agency regulars (Cat. II) RMAC agency regulars (Cat. II) Out-of-RMAC hotshot crews (Cat. I) Organized crews both out-of-RMAC and in-RMAC (Cat. II) (such as, SRV, Montana Indians, SRV, etc.) RMAC hotshot crews (Cat. I)
Helicopters	'CWN' or rental agreement Within RMAC helicopters required for initial attack at home unit due to fire activity or potential thereof Out-of-RMAC helicopters Within RMAC helicopters **not** required home for initial attack
Radios	Assemble National Fire Cache Radio Systems and ship to NICC via airfreight or charter aircraft as soon as possible. Coordinate with RMCC on transportation. DO NOT hold radios on unit. They must be returned to cache for refurbishing for next fire. RMAC radio systems may be retained for mop-up and then sent to Rocky Mountain Area Fire Cache for refurbishing.
Fire Cache Equipment and Supplies	Local unit cache items Local cooperator cache items RMAC cache items Out-of-RMAC cache items
Engines and Water Tenders	Local units needed for initial attack Local cooperators and other units needed for initial attack Out-of-RMAC engines Local cooperator and other units not needed for initial attack Local units not needed for initial attack
Heavy Equipment	Same as Engines. National Guard equipment should be released as soon as local resources can handle or replace National Guard equipment.
Overhead	Overhead releases shall be as required by the fire team and the local unit's needs. Strive to consolidate overhead in groups of common destinations.

f. Release of Interagency Incident Team: an agency administrator or a designated representative must approve the date and time. The transition must be as smooth as possible and local fire team members should be assigned to start working with IMT members at a predetermined time. The local fire team should be rested and off fire duty 24 hours prior to takeover.

The IMT should begin transitioning in the local team as soon as demobilization planning is complete and implementation is started. Fire management activity should be at a level and workload that NCFMP personnel can reasonably handle.

Criteria to be considered before the release of an IMT team:

- Fire must be contained or in a condition where the complexity indicates a lower type of management organization.
- Most line crews should be released that are not need to patrol and/or mop up.
- Base fire camp shut down, reduced, or in the process.
- Plans chief has prepared a narrative fire report and individual fire report as part of the final fire package.
- Finance chief should have all known finance problems resolved. Contact made with budget and finance personnel. (Finance and/or logistics chief may have to stay longer or return to resolve problems.).
- Fire suppression rehabilitation work completed to NCFMP's satisfaction or plan written to satisfaction.
- Performance ratings completed and submitted to NCFMP as final package.

g. Debriefing - The Western Slope center manager, forest supervisor, regional fire specialist (USFS), Colorado State FMO (BLM) should debrief the IMT and prepare evaluation before release. Items to cover:

The Western Slope center manager, forest supervisor center manager should give overall team performance evaluation in writing considering the following:

- Were incident objectives met?
- Were incident operations conducted in a cost effective manner?
- Identify outstanding or poor performance of individuals, crews, or others involved in the suppression, mobilization, and demobilization of the fire.
- Were there any special problems or recommendations to be brought to the attention of the regional fire coordinator (USFS) or the Colorado State FMO (BLM)?

h. Safety: *Safety is the number one priority for all personnel engaged in or supporting fire management activities*. Fire management work is one of the most hazardous jobs encountered by federal personnel. The incident commander and all supervisors will always put the safety of his/her personnel first. *There is no fire situation so serious that the life of anyone should be risked in order to get to the fire sooner, get the fire out quicker, or to keep the burned areas smaller.*

All employees will abide by the '*Safety First'* policy. Each employee has a responsibility for his/her personal safety and that of fellow employees. It is also everyone's responsibility to call attention to any unsafe practice that is observed.

The following steps will be taken to help assure firefighter safety:

- All fire personnel will follow the 10 Standard Fire Fighting Orders, 18 Watch-Out Situations and shall practice the principles of lookouts, communications, escape

routes, and safety zones (LCES). These basics of fire fighting survival will be utilized as a checklist for supervisory personnel on the fire, and as a source for other fire line personnel to pose questions to supervisory personnel whenever they have concerns about their personal safety.

- All type III and more complex incidents will be staffed with a qualified safety officer.
- Seat belts shall be used at all times while traveling in any vehicle.
- Required personal protective equipment (PPE) will be worn at all times. Job hazard analyses will dictate appropriate PPE to be utilized for fire management activities other than suppression.
- Fire shelters will be carried by all firefighters at all times on all wildland fires.
- Speed limits and other traffic laws will be obeyed at all times.
- Safety rules, standards and accepted procedures will be adhered to at all times.
- Personnel will be fully qualified and current for the position they fill.

i. Communications

1. Cell Phones – Zone fire management staff and resources use cell phones for routine contacts and coordination. Cell phones should be used by initial and extended attack resources for lengthy conversations regarding operational tactics, logistical needs and coordination and other matters that would unnecessarily tie up available radio frequencies.

Cell phones should **not** be used to contact CIDC or zone fire management staff during incident size up. Staff members are prohibited from making personnel calls on agency provided cell phones for other than emergency contacts with family members or within the guidelines of agency policy for extended assignments away from home and their duty station.

All fire management vehicles routinely driven by a sole occupant are equipped with a hands-free device to provide for employee safety.

2. Radio Communications/Procedures - Fire size-up information shall be communicated to the CIDC using the appropriate interagency frequency.

During an ongoing fire, interagency dispatchers may request that fire related radio traffic be prioritized over routine resource management traffic on specific agency repeaters.

A list of available radio frequencies is available from the communications technician or zone fire management staff. A list of commonly used interagency and cooperator frequencies is included in the incoming resource briefing guide.

j. Wilderness Fire Suppression***:*** Within the NCFMP, the fire suppression policy for wilderness areas is to conduct all fire management activities in a manner compatible with overall wilderness management objectives. The Western Slope Center Manager, Forest Supervisor is delegated the authority to approve the use of helicopters, and ground based mechanized equipment such as chainsaws and portable pumps within wilderness areas to respond to an emergency fire situation. The responsible zone FMO secures this approval on a case-by-case basis.

k. Minimum Impact Suppression Tactics (MIST) Requirements: The concept of MIST is to use the minimum amount of forces necessary to effectively achieve the fire management protection objectives consistent with land and resource management objectives. It implies a greater sensitivity to the impacts of suppression tactics and their long-term effects when determining how to implement an appropriate suppression response. Providing for firefighter and public safety will be prioritized over use of minimum impact suppression tactics in all cases.

B. WILDLAND FIRE USE

1. Description of the Wildland Fire Use Opportunities

Management of these natural ignition fires will more closely align actions of fire managers with the land and resource management plans desires in each specific area where fire use is allowed. This process will address the guiding principles of the Federal Wildland Fire Policy by: establishing an approved plan for every burnable acre within the NCFMP area, providing an increase in firefighter safety by limiting exposure, and insuring the role of wildland fire as an ecological process and a natural change agent. It will also address the goals set forth in the 10-Year Comprehensive Strategy by: maintaining and restoring fire prone ecosystems at a landscape scale, and reducing total number of acres at risk to wildland fire.

On public lands managed by the NCFMP, there are two FMUs where the use of wildland fire may be allowed to accomplish specific, pre-stated resource management objectives.

- **FMU C**: The overriding resource management concerns for each of the sub units were identified, and then the most suitable management objectives were developed based on habitat needs and fuel characteristics. Specific objectives for this FMU are listed in Appendix B. These wildland fire implementation areas were identified through the land use plan and the activity level process. Stand replacing fires of greater then 1,000 acres will generally not be allowed under the wildland fire use strategy.
- **FMU D:** Specific objectives for this FMU are listed in Appendix B. These wildland fire implementation areas were identified through the land use plan and the activity level process. Management objectives simply set resource constraints on the number of acres burned to achieve a mosaic of age classes and vegetation diversity.

Wildland Fire Use (WFU) refers to the management of naturally ignited wildland fires to accomplish specific, pre-stated resource management objectives in predefined geographic areas as defined in the land use and resource management plans and outlined in this FMP. Notification procedures have been established to alert these officials when a fire maybe managed for resource benefit within each FMU.

Wildland fires in FMU C and D will receive a suppression response commensurate with values-to-be-protected, firefighter and public safety and cost efficiency or they may be managed to

accomplish resource management goals. Two types of fires may be approved for use within the FMUs C and D:

- Those naturally ignited wildland fires allowed to burn under pre-determined conditions. All ignitions determined to be human caused will be suppressed using an appropriate management response.
- Those ignited by qualified agency personnel designed to reintroduce the type of fire that would be expected to occur naturally.

Fire regimes may vary between vegetation types and different regions. Parameters for WFU or management ignited fires consider this natural range of variability. For example, if a natural fire regime included very frequent, cool burning surface fires, but also included an occasional long return interval stand replacement fire then that stand replacement fire is within the natural range of variability and will be considered when analyzing WFU.

The desired result is that the landscape should take on an appearance of what would exist naturally and historically. It should display a mosaic of complex vegetation patterns and types that would have evolved naturally with ecological and geological processes. There generally should be less continuous, uninterrupted vegetation types, more openings, a variety of seral stages and different communities in a random patchwork.

2. Preplanned Implementation Procedures

a. Annual Activities Required to Designate and Implement the Wildland Fire Use Program - Annual activities required to designate and manage incidents for wildland fire use include:

- Coordination and collaboration with key agency staff and publics focusing on special use permittees, recreationists and public or communities that would be potentially affected by a wildland fire use incident.
- Coordination and collaboration with agency public affairs staff to prepare pre-season news releases.
- Internal coordination with interagency staff members.
- Preparation and receipt of an open burning permit from the Colorado State Department of Health and Environment, Air Pollution Control Division.
- Wildland fire use applications will follow the National Interagency Mobilization Guide direction when in preparedness level IV and V.

b. Wildland Fire Implementation Process (WFIP) Implementation Stages - The use of wildland fire to meet resource management objectives is a strategy that will be considered by fire managers during the WFIP. The WFIP documents: existing conditions, predicted conditions, decisions made, and trigger points for future decisions. Only the most complex fires being managed for resource benefits will require completion of all three distinct stages of the WFIP (Figure IV.B.2). When wildland fires occur, pre-planned descriptions in the FMP in combination with the Go/No Go Checklist and the Fire Situation Help Guide the agency administrator's decisions.

Progressive development of these stages will occur for wildland fires managed for resource benefits or where initial attack is not the selected response. Objectives, fire location, cause, conditions of fuel continuity, current fire activity, fire location, predicted weather and fire behavior conditions, and risk assessment results will indicate when various WFIP stages must be completed. Most wildland fires will require completion of only Stage I and part of Stage II during their management. As resource benefits become more important as strategic decision factors, additional planning and documentation requirements additional WFIP stage are involved.

Since the WFIP will be prepared progressively (Stages I, II, and III), specific forms and formats will apply to each individual stage. As each stage is prepared, it will be attached to previous stages until completed or management of the fire accomplishes the objectives. When the complete WFIP has been developed, it will be a highly specific operational management plan

Table 15: WFIP Implementation Stages

Stage	Description
Stage 1	The zone FMO, fire ecologist or designee along with the responsible agency administrator will complete initial fire assessment within two hours of receipt of size up information that confirms that the ignition was started by lightning. The Stage I assessment provides the decision framework for selecting the appropriate management response. Operational management decisions are described in the WFIP
Stage 2	Short-term implementation actions are completed by the fire use manager (FUMA) and staff within 24 hours of the completion of the Stage I assessment. Key components of the Stage II assessment include development of short-term fire behavior predictions, implementation actions required, and incident complexity analysis. Individual wildland fire use plans identify the responsible agency administrator who must approve the Stage II assessment. This responsibility is in large part based on the projected complexity of the incident, potential to affect multiple jurisdictions and projected duration of the incident.
Stage 3	Long term assessment and implementation actions include identification of the maximum manageable areas (MMA) and long-term risk assessment. In addition to the fire use manager (FUMA) a long-term fire analyst (LTAN) or fire behavior analyst (FBAN) is required to complete applicable risk assessments and projections.

The zone FMO or fire ecologist designee shall initiate a wildland fire implementation plan (WFIP) for all wildland fires determined to be candidates for management as a wildland fire use incident.

An interagency WFIP form has been developed by the National Wildfire Coordination Group to be used nationwide and can be found in the NCFMP Operational Procedures Guide. The complete implementation process is described in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide (1998).

c. Decision Criteria for Wildland Fire Use – The prescription parameters, prescriptive criteria and relative risk assessments included there contain environmental and resources breakpoints to aid the decision-making process and help insure that the threshold acres in the resource constraints are maintained.

The sum of undesirable effects over time in acres are found in the resource constraints section of the management objectives tables (Appendix B) a candidate ignition for designation as a wildland fire use incident:

- Firefighter and public safety
- The ignition must be lightning caused.
- Key management positions such as a fire use manager (FUMA) and long term fire analyst (LTAN) must be available and dedicated to management of the incident.
- Proximity to boundary of wildland fire use area and/or potential to exceed pre-established boundaries.
- Ability of the incident to meet resource management objectives.
- Potential to damage or destroy significant improvements, natural or cultural resource values.
- Projected scope and duration of impacts to air quality.
- Political considerations and impacts to social values.
- Projected duration of the incident and ability to provide management oversight and necessary implementation actions.
- Fire management activity at the national, geographic area and unit level.
- Current and predicted fire behavior including expected spread into adjacent fuel profiles.
- Seasonal, current and predicted weather conditions (drought, time of year, probability of a season-ending weather event).
- Historic fire occurrence, historic weather and evaluation of past fire intensity, size and duration.

d. Key Considerations in Recommending Wildland Fire Use - In addition to the factors listed above, the following considerations should be addressed in the Stage I – Initial Fire Assessment Process:

- The proposed maximum manageable area (MMA) should be highly defensible.
- The MMA should be large enough to reduce the need for resources to tactically implement management actions at selected trigger points.
- The cost of managing the incident as wildland fire use should be less than that needed to implement a safe and successful appropriate management response as displayed by an economic analysis.

3. Initial Action Procedures

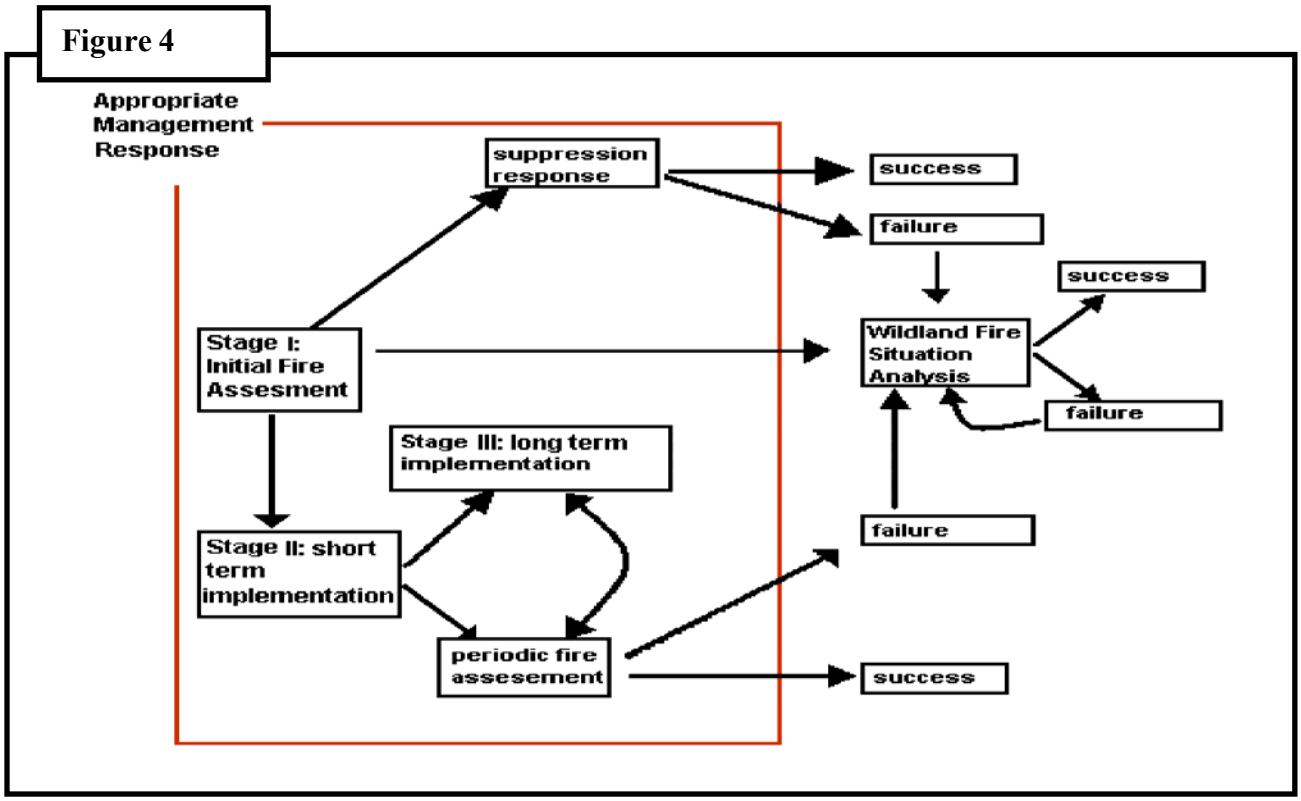
All wildfires will be subject to an initial attack response. This response will include size up of the current fire situation, determination of probable fire cause and estimate of potential for fire spread. An appropriate management response will be initiated unless the fire is determined to be

a candidate ignition for management as a wildland fire use incident. The appropriate management response will be developed based on firefighter and public safety considerations, resource and cultural values at risk, and circumstances unique to the incident while providing for cost-effective management.

All candidate ignitions will be managed in accordance with the procedures and requirements outlined in the Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide (1998). All ignitions determined to be human caused will be suppressed using an appropriate management response.

Before a wildland fire is managed for resource benefit, authorized and qualified personnel must follow a clearly defined decision making process. (Figure 4) provides a brief overview of the full range of appropriate management responses and necessary steps for evaluation and management of wildland fires to accomplish specific resource management objectives in defined geographic areas.

Figure 4



4. Required Personnel

The NCFMP is authorized to manage wildland fire use incidents up to and including those at the type III complexity level. A fire use management team will be ordered for incidents exceeding this level of complexity. Current qualified staff members may act as interim fire use managers pending the arrival of a fire use manager (FUMA) or fire use management team. A current list of all personnel qualified to manage and/or assist in wildland fire use incidents is available

through the CIDC. Zone FMOs and/or the NCFMP FMO may act as interim fire use managers pending the arrival of ordered a FUMA resource(s).

The NCFMP Operational Procedures Guide outlines necessary personnel and procedures for implementing the full range of Appropriate Management Responses (AMR) for all wildland fire in the NCFMP.

5. Public Information

Media contact and news releases about fire management activities will be coordinated through the fire information officer (FIO) or other media liaisons functioning out of or through the CIDC with input from the jurisdictional agency managing the fire and will not be conducted or released by any assisting agency without the permission of the jurisdictional agency. In the event of a project fire where an FIO is assigned, all media information will be handled through that position.

6. Records

Records for all wildland fires are kept at CIDC. Extensive documentation is kept on large wildland fires with a suppression response and wildland fire use fires. The NCFMP Operational Procedures Guide includes copies of the basic documentation used to make and track decisions made in all wildland fire incidents. The zone FMO's will be responsible to see that the documentation is complete and cataloged.

Geographic Information System (GIS) is used and updated on a continuing basis to document the effects of the fire management program over time in a spatial and data related format. Tracking of fuels projects, fire suppression, and fire use events are kept on each administrative unit and will be centralized at the NCFMP center.

7. Cost

Each administrative unit retains control over their respective budgets and fiscal related accomplishments tracking, with guidance and coordination from the NCFMP FMO. The BLM units have a unified budgeting structure between the three BLM administrative units and all the primary administrative units share resources as needed for fuels and wildland fire projects and assignments.

Several different budgeting approaches are used by the agencies and bureaus involved in the NCFMP, therefore, in order for them to relate to their respective national offices separate financial request are made. The BLM and the Forest Service units in the NCFMP use the National Fire Management Analysis System (NFMAS).

C. Prescribed Fire

Fire is an essential ecological process in many ecosystems. Protecting lives, property, and natural resources does not mean eliminating fire from the environment. The use of fire to

accomplish land and resource management objectives is referred to as prescriptive or prescribed fire and may be described as the deliberate application of fire to wildlands to achieve specific resource management objectives under predetermined conditions.

Prescribed fire as a fuel treatment or as a method of attaining other management objectives can reduce costs but there also exists a level of risk that must be accepted, based on the probability and the consequences of a fire exceeding its prescription parameters. It is fully recognized that escapes may occur from time to time, but proper planning and execution should keep these escapes a rarity.

Prescribed burning is a well-established practice utilized by public and private land managers. Often, multiple fire protection and resource management benefits are achieved concurrently. Natural resource managers use prescribed fires for many purposes including:

- Reduce accumulated vegetation
- Restore natural conditions
- Improve ecosystem health
- Maintain or restore healthy wildlife habitat
- Create barriers for protecting high-value areas such as timber investments, private property or administrative sites
- Control spread of noxious weeds
- Increase water availability by eliminating encroaching plants
- Stimulate grass/ forb growth in areas to decrease erosion potential
- Enhance soil ph and increase soil nutrients

1. Planning and Documentation

Each prescribed burn must be developed in accordance with National Environmental Policy Act (NEPA) procedures. The results of the environmental analysis, including alternatives to the proposed action, anticipated environmental effects, and mitigation measures will be documented in an Environmental Assessment (EA), Environmental Impact Statement (EIS), or categorically excluded from documentation in an EA or EIS. The decision to burn must be documented in a decision memorandum (DM), decision notice (DN), or record of decision (ROD).

The NCFMP attempts to do fuels project planning approximately one and half years ahead of implementation. Personnel training needs are assessed annual to facilitate the fuel program.

All fuel treatment projects, including prescribed burns, are displayed in the National Fire Plan database. When specific projects are not currently identified the general location is identified, by polygon in the implementation plans.

a. Summary of Prescribed Fire Program

1. Planning and Analysis - The NCFMP prescribed fire program is undertaken on an interagency basis to treat natural and unnatural fuel accumulations to meet resource management objectives as outlined in land use plans. Treatments have traditionally included wildlife habitat

enhancement, site preparation for artificial and natural regeneration, range habitat improvement and hazardous fuels reduction.

The decision to use prescribed fire must come from current approved land use documents for the area in which the burn is located. Project level analysis, through the National Environmental Policy Act (NEPA) process and other state and federal regulatory compliance processes, document the purpose and need for treatment. This analysis also identifies the goals and objectives that the prescribed fire treatment is intended to achieve.

In an effort to be more cost effective, project analysis may be done for multi-year treatments on the scale of several thousand acres. Similarly, treatments are planned using a burn unit concept on some sub-units, which results in additional flexibility in project implementation taking advantage of favorable sites and seasonal windows for treatment.

The NCFMP develops out-year program planning and budgeting information for prescribed fire treatments in accordance with land use plans. The development of treatment proposals is typically accomplished one to three years in advance of planned treatments. Field reconnaissance and interdisciplinary analysis are completed one to two years in advance of project implementation.

2. Primary Burn Windows - The primary burn windows for NCFMP occur in the spring. Burning is also accomplished in the summer and fall. Pile burns are planned and implemented during the winter when other burning opportunities are not available.

3. Development of Burn Plans - All BLM units within the NCFMP will use H-9214 as their guide for development and implementation procedures in prescribe burn projects and planning. USFS personnel involved with prescribed burns should familiarize themselves with FSM 5140, Interim Directive 90-1, FSM 5150, and the Regional and Forest Amendments to FSM 5140 and 5150, for development of prescribed fire plans and implementation of projects.

Burn plans are developed at the zone level by fire management staff qualified as level II burn bosses (RXB2) or subordinates for developmental training opportunities. Detail in the prescribed burn plan may vary with type and complexity of the job.

4. Review of Burn Plans - All burn plans will have three reviews before implementation – technical review by someone qualified and not a part of the project team, NCFMP FMO and the appropriate agency administrator for approval. In addition, a technical review is conducted the unit operations specialist and/or fire ecologist. This technical review focuses on development of prescription parameters, complexity analysis, and risk assessment and smoke management mitigation activities. The NCFMP FMO is responsible for review and approval of all plans proposing the use of aerial ignition or aviation resources.

5. Approval of Burn Plans - Each prescribed burn plan requires approval by the appropriate agency administrator. Upon approval of the prescribed burn plan, the execution, including mop up, must follow that plan. The approving agency administrator must authorize any changes to the approved burn plan.

Agency administrator approval has been delegated to the District Rangers/Field Office manager for level II and III projects. The forest supervisor or the field office manager is the approving authority for level I (complex) prescribed burning projects.

6. Documentation Requirements - Documentation requirements relative to burn plan preparation have been established by the NCFMP fire management staff. All prescribed fires are documented with the following information:

- Prescribed fire plan
- Map of project area and surrounding area
- Monitoring data, including weather, fire behavior, and fire effects observations
- Weather forecasts, spot, short and long-term
- Smoke dispersal information

7. Reporting Requirements - Project level reporting and pre-burn notification requirements have been established for the agency NCFMP staff group. Separate reporting requirements also include submittal and annual reporting requirements for smoke emissions to the Colorado Department of Health, Air Quality Control Division.

8. Exceeding Existing Prescribed Fire Plan - Any prescribed fire that exceeds either the maximum manageable area (MMA) or available funding is declared an escaped fire. Following an escaped fire declaration, a wildland fire situation analysis (WFSA) is completed and approved by the responsible agency administrator. This process is the same as previously described for wildfires that escape initial attack.

9. Prescribed Fire Project Critiques - The burn boss, key subordinates, zone FMO or NCFMP FMO will conduct and document an informal post-burn critique. Formal project reviews are not required except in the instance of an escaped fire.

10. Preseason Activities - Equipment preparation, permits and approvals, workshops and public contacts, newsletters, etc. is the responsibility of each agency in the NCFMP. Cooperative and coordinated efforts and the activities listed above will be undertaken whenever feasible.

11. Collaborative Processes in Planning - Fire management personnel from the NCFMP will collaborate and coordinate planning of prescribed fire treatments. This planning effort will be to maximize effectiveness of treatments in meeting resource management and hazard fuel treatment objectives across the NCFMP. Agencies will be responsible for writing plans, funding and implementation of projects on their lands.

12. Priority Setting - The prioritized listing of projects is located in the NCFMP Operational Procedures Guide. Future project workloads are maintained in the BLM RAMS system.

Table 16: Fuel Management Projects – Prescribed Fire

Projects/Year	2004	2005	2006	2007	2008
Number of prescribed fire projects proposed.	7	11	8	5	3
Number of acres proposed for treatment.	3100	3700	2500	1600	1200
Number of projects implemented through local contractors.					
Total acres treated in Condition Class 2 moved to Condition Class 1.	3100	3700	2500	1600	1200
Total number of acres treated in Condition Class 3 moved to Condition Class 2 or 1.					

13. Level of Vegetation Treatments - When considering vegetation management goals along with anticipated funding, personnel, planning priorities and climatic conditions; the reasonable foreseeable vegetation treatment level (e.g. level of fuel treatment and amount of prescribed fire) for the NCFMP is generally assumed to be no more than 10% of the resource area over a 10-year period.

14. General Vegetation Treatment Guidelines - The following guidelines will be considered in site-specific projects. Project-level environmental analyses may determine the need for additional considerations.

- Pile burning of mechanically cleared vegetation/debris is acceptable in FMU A.
- Equipment used in vegetation treatments should be washed and weed-free before arriving onsite.
- Except where specific treatments are designed to control or manage vegetation within riparian areas, treatments will be designed to avoid riparian areas. Adequate buffer strips around watercourses and drainages may be necessary to protect riparian areas. The extent of the buffer strip depends on a number of factors such as: the slope, the type of treatment, acres treated, current vegetation condition, etc., and will be determined through a site-specific environmental analysis.
- Vegetation treatments conducted on uplands adjacent to riparian areas will be designed and conducted in a manner that limits potential for soil erosion and sedimentation and increases vegetative ground cover. This includes riparian restoration work, and salt cedar removal, intended to improve habitats. Where erosion potential is high, establish baseline water quality data prior to conducting vegetation treatments and conduct water quality studies until the site is revegetated and soils are stabilized to determine impacts of vegetation treatments on water quality.
- Consider visual qualities in visual resource management (VRM) class II and I areas where the classification goal is to preserve the landscape character.

Landscape modifications should replicate a natural shape, form, color and texture found in the surrounding area.

- To minimize large losses of key big game winter habitat on public lands, limit vegetation changes within localized severe big game winter ranges to 10% of the range per year over a 10-year period.
- Prescriptive treatments with the potential to disrupt visitors should avoid high use areas and occur outside of high use seasons, such as the fall big game rifle hunting seasons.
- Consultation with the U.S. Fish & Wildlife Service is mandatory if there is the possibility that a listed species maybe present within a project treatment area.

b. Numbers and Kinds of Qualified Personnel Necessary to Plan and Execute the Prescribed Fire Program

BLM qualification standards can be referenced in BLM Handbook 9213-1. Forest Service qualification standards for the organizational positions are listed in the FSM 5142.2 and the Regional Supplement 5142. Fish and Wildlife Service qualification standards can be referenced in their Fire Management Handbook.

Qualified personnel required to plan and execute the prescribed fire program are largely involved in the NCFMP interagency fire management program. At the zone level, a fuels specialist is responsible for project level planning as assigned by the zone FMO. The fuels specialist and zone FMO may split the workload on an annual basis. Each individual may act as the interdisciplinary team leader or subject matter specialist on assigned projects.

An interagency list of individuals qualified in key prescribed fire positions can be found at the CIDC. All personnel participating on a prescribed fire will be qualified in the positions they are assigned in accordance with NWCG standards for prescribed fire operations.

c. Monitoring Program Effectiveness in Meeting Objectives

General resource objectives are found in the agency RMPs. Specific resource objectives are identified in project burn plans. The burn plans will identify the appropriate monitoring protocols, both short and long term, as well as the individual(s) responsible for conducting, recording and assessing the data obtained. The monitoring protocols will vary depending on the depth and nature of the identified resource objectives.

d. Fuel Treatment Map - Past Accomplishments and Proposed Treatments

Past and planned treatment project areas maps are maintained in a GIS database at the NCFMP office.

2. Air Quality and Smoke Management

a. Pertinent Air Quality Issues

As previously noted, implementing this plan could result in an overall increase of acres burned per year, which could have additional impacts on air quality. Prescribed and wildland fires are a potentially significant source of air pollution because fire is a natural combustion process that releases air pollutant emissions. The amount of emissions depends on the size and intensity of the fire, which is determined by meteorological conditions, the fuel type and moisture content, and the available fuel loading. Dry fuels (such as dead and down or dry vegetation) are consumed first in the beginning stages of burning. As a fire progresses, green/live vegetation is dried through heat convection and radiation, then consumed as well. These varying combustion stages produce differing amounts of emissions because the efficiency of the combustion process in these fuels determines how much of what type of emissions are produced. Fuels consumed in the flaming front tend to have more complete and efficient combustion and thus emit fewer pollutants than fuels consumed in the smoldering stage.

These potential impacts were considered in developing this FMP, and mitigation measures have been built into the plan to offset potential negative impacts from smoke pollution. For one, air quality is a factor that must be considered in the prescriptive criteria (Go/No Go Checklist) to determine the viability of implementing a prescribed fire or fire use project. If the established federal and state standards for air quality cannot be met or mitigated in an acceptable manner, the project will not be implemented until conditions change. Secondly, even when these standards are met, the plan also provides a list of smoke management techniques to mitigate potential impacts, which includes monitoring the amount of emissions and the direction of the smoke dispersal. NCFMP has the Colorado special status air quality area map, which identifies class 1 and II air sheds and non-attainment areas. Prescribed and use fire projects will comply with the more stringent regulations in these areas. Finally, the land is also designed to accommodate areas where fire is not desired and other types of fuels treatments need to be used. Therefore, additional areas where concerns with air quality standards would require the use of alternative fuels treatments are identified in this plan. Alternatives, such as chemical treatments and mechanical treatments, including brush beating, and thinning are utilized extensively throughout the planning area.

It is important to note, too, that suppressing all wildland fires with no preventative fuels treatments could improve air quality in the short-term by eliminating even temporary smoke production as quickly as possible. However, preventing periodic fires in the ecosystem has already contributed to unacceptable fuel loadings in certain parts of the planning area, which has increased the risk of larger, more intense wildland fires burning for longer periods. These uncontrolled wildland fires typically cause greater air pollutant emission levels. Thus, they ultimately result in more extreme and widespread air quality impacts. This FMP provides the greatest management flexibility to control smoke production and impacts in smoke-sensitive and high visibility areas. This fire management approach has considered many feasible and economically reasonable methods to minimize smoke emissions in balance with the need to respond to wildland fire and sustain ecosystems, and by such, will conform to the State standard

with respect to all emissions. This plan will help the State attain and maintain national ambient air quality standards and achieve Federal and State visibility goals.

All prescribed fire and fire use activity shall conform to the State standard to minimize emissions using all available, practicable methods that are technologically feasible and economically reasonable in order to minimize the impact or reduce the potential for such impact on both the attainment and maintenance of national ambient air quality standards and achievement of Federal and State visibility goals.

Identification of smoke sensitive areas, class I airsheds and proposed project mitigation actions are identified in the modeling and project permit submittal forwarded to the Colorado Department of Health and Environment.

b. Mitigation Measures to Adverse Smoke Events

1. Location of Class I Air Sheds and Clean Air Corridors - Two class-I airsheds exist within the NCFMP: The Mount Zirkel and Flat Top wilderness areas. A regional air quality and haze study is currently being conducted in the Mount Zirkel Wilderness.

2. Description of Pre-Identified Smoke Sensitive Areas - Air quality across the NCFMP is generally good. Steamboat Springs, located along the western slope of the continental divide and in close proximity to the Routt National Forest, was considered a non-attainment area and has since been upgraded to a maintenance area in the state implementation plan.

The following are considered sensitive to the impacts of smoke:

- Schools
- Health care facilities
- Federal and State highways
- Communities/subdivisions

3. Local and Regional Smoke Management Restrictions and Procedures - The Colorado Department of Health and Environment, Air Pollution Control Division reviews and approves a smoke permit for each management ignition project prior to implementation. Annual reports on acres treated are submitted for upward reporting at the State level.

Permits must be obtained from the State DEQ for all prescribed burn projects. Lists of proposed projects must be submitted to the state by February 1 of each year. Permits are issued by March 1st. Prior day approval for each burn is required the day before planned ignition from the State. The burn season is closed from December 15th until February 1 of each year.

Consultation and approval by the State of Colorado is a continuing process, as described below. Management will cooperate with other land managers and the State of Colorado to minimize air quality impacts from smoke on local communities and individuals, including the following specific measures:

- When preparing site-specific burn plans, the agencies will obtain all necessary air pollutant emission permits and approvals from the State of Colorado prior to initiating a prescribed fire. The agencies will follow and implement the terms of the interagency Colorado Smoke Management Plan and MOU as well as any site-specific open burning permit.

- The agencies will assess potential air quality impacts through the use of smoke dispersion modeling techniques (e.g.: SASEM, etc.) to predict particulate matter emissions, smoke plume characteristics, exposure and visibility impacts.

- The agencies will apply management techniques to minimize smoke production and to enhance dispersion, including burning under optimum weather conditions, expanding the burning season, using backing fires where applicable, burning small blocks, expediting mop-up, etc. These techniques are described in the Prescribed Fire Smoke Management Guide, published by the National Wildfire Coordinating Group (NFES No. 1279, PMS 420-2; 2001).

- Once a prescribed fire is initiated, the agencies will monitor weather and the burning and smoke dispersion conditions to assure air quality impacts remain within prescribed smoke management levels. If monitoring indicates conditions are no longer within prescription, managers will declare the fire an unwanted wildland fire, and initiate the appropriate management response.

- The agencies will establish and maintain close communications with State and local agencies regarding the status of prescribed fire projects and wildfires. They will notify concerned smoke-sensitive organizations (e.g.; hospitals, schools, retirement centers, or other areas identified on the attached special status air quality area map) of intentions and conditions, both prior to and during prescribed fire activities.

- The agencies will ensure that the general public is informed of the status of prescribed burns, including smoke management contingencies, through the local press, radio and television.

The field personnel will maintain communications with the CIDC. This office will act as a clearinghouse, providing and maintaining daily information on burning projects throughout the region.

4. Measures to Prevent or Mitigate Adverse Smoke Events - Project planning addresses and quantifies potential levels of emissions incurred through project implementation. The current acceptable smoke model used is SASEM (Simple Approach Smoke Emission Model). The original intent of SASEM was for it to be used as a screening model for exceedance and visibility impairment. As more sophisticated models become available, they will be used for planning purposes within this FMP.

When NCFMP manages wildland fires for resource benefit and conducts prescribed fires, areas affected by the smoke must still meet air quality standards to protect public health. Despite the

FMP's anticipated increases in prescriptive fire, clean air and public health goals can be met through careful planning and cooperation among land managers, air quality regulators and local communities. Fire managers realize that suppressing all wildland fires with no preventative fuels treatments would improve air quality in the short term. However, preventing periodic fires has already contributed to unacceptable fuel loadings in many areas, which has increased the risk of larger, more intense wildland fires burning for longer periods. Large uncontrolled wildland fires typically cause greater air pollutant emission levels and more widespread air quality impacts.

The key to successfully balancing prescriptive fire and meeting air quality standards is a smoke management program. The FMP allows proactive management flexibility to control smoke production and impacts in smoke-sensitive areas. In addition, mitigation measures have been built into the FMP to reduce potential negative impacts from smoke pollution. First and foremost, air quality is considered in the prescriptive criteria of the Go/No Go Checklist to determine the viability of implementing a prescriptive fire treatment. If the established federal and state standards for air quality cannot be met or mitigated in an acceptable manner, the project will not be implemented until conditions change. The Go/No Go Checklist is evaluated on a daily basis.

Secondly, even when these standards are met, the FMP also identifies smoke management techniques and procedures to mitigate the potential impacts of smoke. Application of these techniques will minimize air quality impacts (seeing, smelling, breathing). The techniques are described in the Prescribed Fire Smoke Management Guide, published by the National Wildfire Coordinating Group (NFES No. 1279, PMS 420-1; 1985).

Air Quality and Smoke Management Directive: All prescribed fire and fire use activity shall conform to the state standard to minimize emissions using all available, practicable methods that are technologically feasible and economically reasonable in order to minimize the impact or reduce the potential for such impact on both the attainment and maintenance of national ambient air quality standards and achievement of federal and state visibility goals.

Best management practices from the Interagency Smoke Management Guide are incorporated into individual prescribed burn plans. Examples of smoke management techniques and procedures include:

5. Authorization to Burn

- Consultation and approval by the State of Colorado is a continuing process. Interagency fire managers will cooperate with other land managers and the State of Colorado to minimize air quality impacts from smoke. NCFMP will obtain all necessary air pollutant emission permits and approvals from the State of Colorado prior to initiating a prescriptive fire. The agency will follow and implement the terms of the Colorado Air Quality Control Commission Regulation No. 9 and the Interagency Colorado Smoke Management Plan and MOU as well as any site specific open burning permit.

6. Actions to Minimize Emissions and Enhance Dispersion

- Each prescriptive fire has unique characteristics, but in general, smoke impacts can be greatly minimized by burning during weather conditions that provide optimal dispersion and wind conditions for the types of materials being burned.
- Smoke impacts minimized by limiting the amount of materials and acreage burned at one time.
- Whenever feasible and necessary, mechanical thinning (such as selective timber thinning, pruning or cutting of small trees) used as a pretreatment to prescriptive burning.
- Burning with higher intensities when possible provides for more convection and greater dispersion of smoke.

7. Modeling

- Interagency fire managers assess potential air quality impacts through the use of smoke dispersion modeling techniques (e.g.; SASEM, etc.) to predict particulate matter emissions, smoke plume characteristics, exposure and visibility impacts.

8. Monitoring

- Once a prescribed fire is initiated, the agency monitors weather, burning and smoke dispersion conditions to assure air quality impacts remain within prescribed smoke management levels. If monitoring indicates conditions are no longer within prescription, managers stop the prescriptive treatment or declare the fire an unwanted wildland fire and initiate the appropriate management response.
- Personnel stationed along roadways to visually monitor for smoke impacts and warn motorists of adverse conditions.
- The field personnel maintain communications with the dispatch office. The CDIC acts as a clearinghouse, providing and maintaining daily information on burning projects throughout the region.
- Particulate monitors used as a monitoring tool at sensitive receptors.

9. Public Notification and Awareness

- Interagency fire managers inform the general public of the status of wildland fires, prescribed burns and smoke through local press, radio and television.
- Interagency fire managers establish and maintain close communications with State and local agencies regarding the status of prescriptive fire treatments and wildland fires. When necessary managers notify concerned smoke-sensitive organizations (i.e. hospitals, schools, retirement centers) of management intentions and burning conditions.
- Implementing fire hazard awareness and mitigation programs for the public.

10. Air Quality and Smoke Management Personnel - Unit and regional air quality specialist are available to assist in modeling projected emissions or monitoring emissions during project implementation.

D. NON-FIRE FUEL TREATMENTS

Approximately 39 projects totaling 8,350 acres are planned annually across the NCFMP from 2004 through 2008. In general non-fire fuel treatments within the NCFMP accomplish the first step in a multi-step process of moving the treatment unit toward the ultimate goal of condition class 1 therefore all non-fire fuel treatments would have a goal of moving the treatment unit from condition class 3 to condition class 2 with subsequent non-fire and/or prescribed fire treatments completing the movement to condition class 1. With very few exceptions all non-fire fuels treatments will be accomplished through contracted services with the goal of awarding four contracts to local contractors by FY 2008.

In addition to prescribed fire, the NCFMP anticipates using; manual, mechanical, chemical and/or biological methods to treat vegetation. Not all treatments are suitable for all vegetation types. Treatments will vary depending on factors including; protection priorities, condition of the vegetation, vegetation management goals, proximity to development, time of year and various environmental circumstances. Often several types of treatments may be used in combination. For example, mechanical treatments may be used to create fuel breaks before a prescribed fire. More information on managing competing and unwanted vegetation can be found at (http://www.fs.fed.us/r6/weeds/methods_herbi_pdf.htm).

All fuel treatment projects, including mechanical treatments, are displayed in the National Fire Plan database (NFPinfo, NFPORS) and are available through this database to any agency official and the general public via spatial data, informational data and project type.

1. Manual - Non-powered hand tools and powered tools, including chain saws and motorized brushcutters, are used to cut, clear, thin or prune herbaceous and woody vegetation. Hand tools include axes, brushhooks, hoes, and hand clippers.

2. Mechanical - Emphasis on mechanical treatments of fuels has increased recently to facilitate treatments in the wildland/ urban interface. Mechanical methods include thinning and piling, crushing, cutting, chipping, lopping, cutting and chaining. Rubber-tired and treaded heavy equipment outfitted with blades or mowing attachments are most commonly used for mechanical treatments. . Mechanical treatments will be implemented by site specific analysis and will work reduce fuel loadings for various reasons including, reduce the risk of prescribed fire escapes, hazardous fuel reduction and providing ecological restoration work where prescribed fire may not be feasible.

Annual programs of work, including all necessary environmental documentation (NEPA) required to implement mechanical and other treatments will be consistent with each agencies land management plan. The different types of mechanical reduction techniques are listed and described below:

Table 17: Fuel Management Definitions

Action	Implementation Description
Thinning	Thinning reduces stand density by removing stems in the understory, mid-story and overstory. Once thinning is accomplished, the slash may be

	treated in several ways, including piling the material so it can be burned. Piles will be burned in the fall and winter season and potentially during the summer if conditions become suitable. The actual piling of the material may be accomplished by hand or machine piled. Equipment such as dozers and small tractors will haul the material to piles. Slash may also pushed or dragged into windrows. Some slash may be "rough-piled" or "jackpot piled" where heavier concentrations of fuel are left where they fell and burned on site. Material that is large enough to be of commercial value, usually > 6" may be removed to a landing using a rubber-tire skidder, or tracked vehicle. Both rubber-tire skidders and tracked skidders are used**.**
Crushing	Crushing involves dragging a large drum with spokes or spikes protruding over the vegetation, effectively breaking the fuel into smaller pieces.
Chipping	Chipping is a process where slash is forced through a chipping machine, reducing the larger pieces of slash to small chips that are left on site to naturally decompose. Tractors with attached discs, like the Hydroax, are also used to remove unwanted vegetation. Machines can either partially or totally clear a site.
Lopping	Lopping is where large cutting tools are attached to a "Bobcat" type tractor and trees are cut off at ground level. The trees can be left to lay where they fall, assisting in soil retention or piled and burned.
Chaining	Dozers can drag cable or chain systems to remove vegetation.

3. Chemical - Herbicides may be used to control competing and unwanted vegetation. These chemicals kill plants by disrupting biochemical growth processes. Herbicides are usually applied as liquids mixed with water or oil carriers. Some herbicides are applied in solid form, usually as granules placed on the soil surface to be absorbed by plant roots.

Four methods of applying herbicides may be considered:

- Aerial application
- Mechanical equipment, truck or ATV mounted sprayers
- Backpack equipment, generally a pressurized container
- Hand application, painting cut surfaces or application of granular herbicides to the soil

4. Biological - Prolonged or forced grazing of cattle, sheep or goats may be used to control both noxious weeds and the composition or amount of vegetation. This differs from the typical grazing program in that vegetation control, rather than animal weight gain or forage utilization, is the primary objective.

5. Level of Vegetation Treatments - When considering vegetation management goals along with anticipated funding, personnel, protection priorities and climatic conditions; the reasonable foreseeable vegetation treatment level (e.g. level of fuel treatment and amount of prescribed fire) for NCFMP is generally assumed to be no more than 10% of the resource area over a 10 year period.

Table 18: Fuel Management Projects – Mechanical Treatment

Project/Year	2004	2005	2006	2007	2008
Number of projects proposed.	10	9	7	6	7
Number of acres treated by non-fire methods.	2250	2400	900	1500	1300
Number of acres treated mechanically with by-products utilized.					
Total acres treated in Condition Class 2 moved to Condition Class 1.	2250	2400	900	1500	1300
Total number of acres treated in Condition Class 3 moved to Condition Class 2 or 1.					

6. Monitoring Requirements - Monitoring requirements are developed in response to resource management and project objectives from interdisciplinary input.

E. Emergency Stabilization and Rehabilitation

Emergency stabilization, rehabilitation and restoration efforts are undertaken to protect and sustain ecosystems, public health, safety, and to help communities protect infrastructure. Rehabilitation is any action taken to restore an area to the pre-burn or natural condition. Historically emergency stabilization and rehabilitation (ESR) workload has been approximately 4,000acres per year.

No current plans exist in the NCFMP area. Individual site-specific plans are developed by the resource specialist and will be NEPA compliant. General goals and objectives include the preventions of invasive species and restore watershed function and biological communities through short-term rehabilitation and long term monitoring.

1. Long-term Rehabilitation - All burned areas will be evaluated, by the NCFMP to determine whether post-incident rehabilitation is needed *(i.e. Evaluate to determine whether seeding is necessary to prevent excessive erosion or the invasion of noxious weeds and to restore a native vegetative community.)*. If the evaluation shows that post-incident rehabilitation is necessary, a rehabilitation plan will be prepared and implemented in accordance with; the Interagency Burned Area Emergency Stabilization and Rehabilitation Handbook, supplemental guidance (http://fire.r9.fws.gov/ifcc/esr/handbook/), the fire management zone direction, and other applicable guidance.

2. Short-term Rehabilitation - Incident commanders and resource advisors are responsible for implementing short-term actions to mitigate the effects of fire suppression activities. The following action items will guide short-term rehabilitation of surface disturbing suppression impacts (including closing routes opened during fire suppression) prior to releasing fire crews and equipment following containment. These would be actions taken in addition to standard

mop-up duties of; extinguishing burning material along or near the control line, felling snags, or moving logs so they won't roll downhill.

3. General Rehabilitation Action Items:

- Linear openings created by wildland fire suppression should be closed and rehabilitated in accordance with resource advisor guidance.
- Washed and weed-free equipment should be used in rehabilitation activities.
- Remove all trash, debris, temporary road signing and flagging.
- Flush cut suppression-created tree stumps down to 2-3" above ground level along recreational trails, around recreation areas, and within WSAs and ACECs. Cross-cut the top of all 8"+ diameter stumps to speed decay.
- Where fire lines cross or parallel streams, remove line construction debris from the channel and place debris sufficiently above the channel so it will not roll back down into the stream.
- Conduct a class III cultural resource inventory of all ground disturbing rehabilitation activities and use non-ground disturbing techniques within known or newly identified cultural site boundaries.
- Evaluate road systems for damage and report damage to appropriate NCFMP staff person.
- Evaluate and rehabilitate helispots, camps and parking areas.

4. Rehabilitation Action Items for Hand Lines/Other Trails:

- Scatter limbs/deadfall/rocks (weathered side up) to obliterate evidence of fire line.
- Weed-free seeding should occur prior to pulling organic matter back over hand lines.
- Handlines should be seeded at rates specified for the particular area.
- Where a recreation foot trail was used for fire line, reconstruct the trail tread to 24 inches in width.
- Where fire lines cross recreational trails, discourage recreational use of fire lines, by camouflaging with rocks/debris.
- Block off fire lines to motorized access with rocks, natural woody material and signs.
- Remove hazards from along recreational trails.

5. Rehabilitation Action Items for Dozer Lines:

- Rip and disturb soil to a depth of 6-12 inches.
- Pull fire line berms onto hand line and blend organic matter with undisturbed soil contours.
- Pull trees/limbs/rocks and other organic material back into line perpendicular to slope.

- Block off dozer lines to motorized access using boulders/natural large woody material/signs.
- Dozer lines that were constructed across slopes will need to be fully obliterated with slash.
- Weed-free seeding should occur after pulling organic matter back over dozer lines.

GENERAL WATERBAR SPACING	
Grade	Estimated Spacing
1 - 6%	300'
7 - 9%	200'
10-14%	150'
15-20%	90'
21-40%	50'
41% +	25'

6. Rehabilitation Action Items for Water Bars:

- Provide for drainage with water bars on constructed hand/dozer lines and impacted areas.
- Place water bars, 20-40 degrees perpendicular to the fall line, where natural drainage occurs.
- Hand line water bars should be 8" deep.
- Water bars for dozer lines should be 12"+ deep and 18-24" high for the berm.
- If soil is loose, augment water bar with woody debris and/or rocks.
- Ensure that each water bar has a direct outlet and drains into a vegetation or rock filter.
- On slopes >30%, water bars should be installed perpendicular to the fall line and constructed as "cup trenches" rather than drainage features.
- Water bars on steeper slopes (> 50%) may be built from tree boles and should be alternated to opposite sides of the line.
- Water bar spacing and location should consider site-specific topography during installation.

7. Rehabilitation Action Items to Reduce Sedimentation:

- To reduce sedimentation, straw bale or log check dams are prescribed in areas where resource values are at risk.
- Specific sites where check dams should be considered include ephemeral and small intermittent channels; areas where logs/branches created natural check dams and were burned out; locations with less steep gradients that will naturally store large quantities of sediment; where there are natural sediment catch basins.

8. Documentation - Documentation requirements have been established by the resource and fire management staff and are identified in the normal year fire stabilization and rehabilitation plan. They include identification of projects in the rangeland improvement project system (RIPS), annual work plan (AWP), management information system (MIS), and national fire plan operations reporting system (NFPORS).

9. Monitoring - Short-term monitoring requirements include evaluation of treatment implementation and its initial effectiveness. Post-treatment monitoring may include vegetative transects or the establishment of permanent photo points depending on specific project objectives. Resource specialists and fire management staff with GIS specialist support conduct long term monitoring at the NCFMP level.

F. COMMUNITY PROTECTION/COMMUNITY ASSISTANCE

To assist with hazardous fuel reduction and to promote community assistance, communication and education, Congress directed the development of a list of WUI communities that are at high risk from wildland fire. These are generally referred to as WUI CAR. The list was prepared from information provided by the states and tribes and was first published in the Federal Register (FR) on January 4, 2001. Subsequent cooperative efforts by the states, tribes, and federal, county, and local agencies, provided a more comprehensive list of CAR that better reflects local knowledge, issues, and concerns. This list is continually being updates and should be considered dynamic.

The five counties (Rio Blanco, Moffat, Routt, Jackson, Grand) within the NCFMP have completed wildland fire or pre-disaster plans. Each county has appointed a Natural Resource Advisor, Emergency Manager or Coordinator to work with CSFS, BLM, USFS, NPS and FWS representatives to identify areas of risk from wildland fires and develop community protection and mitigation plans to address these concerns. These projects are in various stages of planning and implementation.

Several areas not included in the CAR list have been designated as high priority by federal, state and local officials due to their impact to or support of social and economic structures. They also reside in areas of high hazardous fuel loading and frequent wildland fires.

- Magnolia Oil and Gas Camp (hazardous fuel reduction)
- Power line (hazardous fuel reduction)
- NATEC (hazardous fuel reduction)

Moffat County =	8 communities at risk
Routt County =	5 communities at risk
Rio Blanco County =	3 communities at risk
Grand County =	7 communities at risk
Total =	23

1. Total number of WUI communities at risk with fire prevention programs in place and being implemented

The five counties identified with a WUI problem share a land base with the NCFMP area. All have ongoing fire prevention programs. Two counties currently have active prevention programs in place. Ongoing fire education, mitigation and defensible space efforts will continue. April of each year has been designated as wildfire prevention month. Through newspaper inserts, other

media events, lectures and demonstration projects, thousands of people are informed of the dangers of wildland fire.

2. Total number of WUI communities at risk that initiated volunteer and community funded efforts to reduce hazardous fuels resulting in the removal of the community from the at-risk list

At this time no communities have reduced their hazardous fuels to the point that they can be removed from the at-risk list.

3. Rural fire assistance program within the NCFMP

The NCFMP works with fire protection districts/fire departments in five counties (Jackson, Routt, Grand, Moffat, Rio Blanco). The priority workload in working with the fire protection districts includes reducing the risk to the wildland urban interface, mutual wildland fire assistance, training and providing wildland firefighting equipment. NCFMP treats all of these counties as equals from the standpoint of community protection and assistance. The annual fire operations plans for the five counties exist only in paper form. Copies are kept by the NCFMP FMO.

Since the National Fire Plan was initiated in 2000 up until the present time, all fire departments have and continue to receive standardized wildland firefighter training, full PPE, other essential safety gear including radios and firefighting equipment such as hand tools, water handling equipment and technical support such as GPS units and computers. The NCFMP (BLM and USFS combined funding) has provided an average of $177,000 per year to the rural fire departments across the Fire Management Unit since the National Fire Plan was developed in 2000.

In the future, with the complex interagency dispatching and essential mutual aid in northwest Colorado, on-going training and cooperation is essential. Rural fire assistance money will be needed to provide training, PPE, technical support and fire fighting equipment and supplies. Many of the fire districts are small with a corresponding tax base. Without federal assistance, these fire districts would not be able to respond to a wildland fire and meet basic national wildland firefighting standards. Decisions concerning these issues will be made using the community assistance planning matrix shown below:

4. NCFMP Rural Fire Assistance Program

FIGURE5: COMMUNITY ASSISTANCE PLANNING MATRIX

County	Local Fire Protection Organization	Wildland WUI Risk Rating (Av/HUC6)	Community	Assistance Agreements P - Planning F - Fuels O - Other R – RFA E – WUI Education C - Community Assistance Grants		Comments BLM Level of Significance
				Provided 2001-2004	Planned 2005-2009	
RIO BLANCO COUNTY						Rio Blanco Pre-Disaster Plan addresses all risk including wildland fire in WUI and CAR
	Rangely FPD			R/O	R/O	Mutual aid agreement in place with BLM, training provided
		low	Rangely		E	Prevention workshops
		low	Oil and Gas	F		
	Meeker FPD			R/O	R/O	Ongoing training for FPD members
		mod	Meeker	F/O	E/O	Media Training offered, Assessments, Educational Workshops
		low	NATEC	F	F	Hazardous fuel reduction=mechanical thinning & Rx
		mod	Magnolia	F	F	Same as above
		mod	Powerline	F	F	Same as above
	Rio Blanco County			P/O	P/O	Training provided to employees
		low	Rural	E		Educational Workshop

County	Local Fire Protection Organization	Wildland WUI Risk Rating (Av/HUC6)	Community	Assistance Agreements P - Planning F - Fuels O - Other R – RFA E – WUI Education C - Community Assistance Grants		Comments BLM Level of Significance
				Provided 2001-2004	Planned 2005-2009	
MOFFAT COUNTY						Moffat County Wildland Fire and Fuel Management Plan evaluates risks at both the community and private landowner level, ongoing Community Protection Planning
	Artesia VFD			O	O	Media training provided
		low	Dinosaur	O	O	
		moderate	Masadona			
		moderate	Skull Creek		F/E	Planning mitigation and hazardous fuel reduction projects
	Maybell VFD			R/O	R/O	Mutual aid agreement; assist with IA, Media training provided
		moderate	Maybell	F/E	E/O	Fuel break established in ’02, ongoing educational opportunities
		moderate	Sunbeam			
	Craig Rural Fire Rescue FPD			R/O	R/E/O	Mutual aid agreement; plan and train with MoCo Sheriff, CSFS & BLM; Media training provided
		moderate	Knez Divide		P/C/E	Planning/mitigation/education with CSFS & county 2004-2005
		low	Western Knolls			
	Moffat County			C/P/O	O	Training offered to employees
		moderate	Elk Springs	F		Hazardous fuel reduction project
		high	Wilderness Ranch		C/E/P	Hazardous fuel reduction project, assessments/education/planning with CSFS, USFS & county 2004-2006
		high	Bakers Peak		C/E/P	Same as above
		moderate	Greystone	F/E/C	F/E	Hazardous fuel break 2002-2005, planning/education/assessments with CSFS & county ongoing
		low	Powder Wash	O	O	
		moderate	Great Divide	O	O	
		low	Lay	O	O	

County	Local Fire Protection Organization	Wildland WUI Risk Rating (Av/HUC6)	Community	Assistance Agreements P - Planning F - Fuels O - Other R – RFA E – WUI Education C - Community Assistance Grants		Comments BLM Level of Significance
				Provided 2001-2004	Planned 2005-2009	
ROUTT COUNTY						Routt County Fire Plan identifies and mitigates wildfire hazard areas in WUI and CAR
	North Routt FPD			R/O	R/O	Mutual aid agreement, ongoing training to FPD members
		high	Clark	E/F	E/P	Ongoing educational and hazardous fuel reduction projects
		moderate	Elk River	E	E/P	Same as above
		moderate	Steamboat Lake	E	E/P	Same as above
		moderate	Columbine	E	E/P	Same as above
	West Routt FPD			R/O	R/O	Mutual aid agreement, ongoing training to FPD members
		low	Rural			
	Steamboat Springs FPD			R/O	R/O	Mutual aid agreement, ongoing training to FPD members
		high	Steamboat	E	E/P	Ongoing education, assessments and planning with CSFS & USFS
		moderate	Elk River	E	E/P	Same as above
	Oak Creek FPD			R/O	R/O	Mutual aid agreement, ongoing training to FPD members
		low	Oak Creek	E		Educational workshops
		moderate	Stage Coach	E/P	F/E	Hazardous fuel reduction project, education/planning with USFS & county 2004-2005
		high	Morrison Creek	E		
	Yampa FPD					
		low	Yampa			
		low	Toponas			
		moderate	State Bridge			
	Routt County Emergency Management			R/O/E	R/O/E	Media training provided, educational workshops ongoing
	Routt County			O	O	Training offered to employees
		Low	Rural			

County	Local Fire Protection Organization	Wildland WUI Risk Rating (Av/HUC6)	Community	Assistance Agreements P - Planning F - Fuels O - Other R – RFA E – WUI Education C - Community Assistance Grants		Comments BLM Level of Significance
				Provided 2001-2004	Planned 2005-2009	
JACKSON COUNTY						Jackson County Fire Management Plan evaluates hazardous fuels and risks of wildland fire in WUI and CAR
	North Park Fire Rescue			R/O	R/O	Mutual aid agreement, ongoing training provided to dept members
		low	Walden			
		low	Cowdry			
		low	Bond			
		low	Mc Coy			
	Jackson County			O	O	Training offered to employees
		Low	Rural			

County	Local Fire Protection Organization	Wildland WUI Risk Rating (Av/HUC6)	Community	Assistance Agreements P - Planning F - Fuels O - Other R – RFA E – WUI Education C - Community Assistance Grants		Comments BLM Level of Significance
				Provided 2001-2004	Planned 2005-2009	
GRAND COUNTY						Grand County Fire Management Plan identifies hazardous fuels and risks of wildland fire in WUI and CAR
	Grand Lake FPD			R/O	R/O	Mutual aid agreement, ongoing training provided
		High	Grand Lake	P/C	E/P	Planning hazardous fuel reduction/mitigation treatments, assessments/education with NPS, USFS, CSFS, county, homeowner groups
		High	Frazier			
	Kremmling Fire Dept.			R/O	R/O	Mutual aid agreement, ongoing training provided
		low	Kremmling			
	Grand FPD			R/O	R/O	Mutual aid agreement, ongoing training provided
		High	Winter Park			
	Hot Sulphur Springs/Parshall FPD			R/O	R/O	Mutual aid agreement, ongoing training provided
		moderate	Hot Sulpher			
		moderate	Parshall			
	Granby FPD			R/O	R/O	Mutual aid agreement, ongoing training provided
		High	Grandby			
	Grand County			O/C	O	Training offered to employees; mitigation treatments planned, assessments 2003-2005
		moderate	Rural			